

FLIGHT

The
AIRCRAFT
ENGINEER
&
AIRSHIPS

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Flight

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"FLIGHT" PHOTOGRAPHS

To those desirous of obtaining copies of "Flight" photographs, these can be supplied, enlarged or otherwise, upon application to Photo. Department, 36, Great Queen Street, W.C.2.

DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1928

- Sept. 8-16 American National Air Races, Los Angeles, Cal.
Sept. 15 "On to Hadleigh" Rally
Sept. 10-21 French International Light 'Plane Meeting at Orly
Sept. 29 Northampton Air Pageant
Oct. 7-28 International Aircraft Exhibition, Berlin
Oct. 8 Aero Golfing Soc.—Team Match v. Stage G.C.
Oct. 24 Aero Golfing Soc.—"Cellon" Challenge Cup
Dec. 3-8 International Aeronautical Exhibition, Chicago, Ill.
Dec. 12-14 International Conference on Aviation, Washington, U.S.A.

1929

- Oct. 31 Guggenheim Safe-Aircraft Competition Closes

EDITORIAL COMMENT



T the time when the "craze" for flying across the Atlantic was at its height, and when a number of British pilots were planning attempts, FLIGHT expressed itself entirely out of sympathy with such adventures, maintaining that nothing was to be gained by repeating, merely for the sake of repeating, what had already been accomplished, and pointing out that if British pilots really desired to help British Empire aviation there were better ways of doing so, such as,

A Modern "Tea Clipper" for example, flying towards the East. When Captain C. D. Barnard, piloting the Bristol "Jupiter"-engined Fokker monoplane "Princess Xenia" for Her Grace the Duchess of Bedford, left England in an attempt to fly to Karachi and back in eight days we welcomed the attempt as a really serious and worthy effort to demonstrate a useful field for air travel. Fates were unkind, and the original plan could not be carried out. The return journey, however, fully justified Captain Barnard's hopes, and thus the flight of the "Princess Xenia" has been at least partly successful.

There is always a tendency, when a specially meritorious flight has been accomplished, to refer to it as a "record," and Captain Barnard's flight from Karachi to Croydon in 4½ days has been so described. Although we do not personally attach any great importance to the difference, it must, in all fairness, be pointed out that it was *not* a record. Lieutenant Koppen, of the Dutch Air Service, having covered the distance last year in 4 days. For all that, Captain Barnard's flight deserves to rank among the foremost flights of the year in that it demonstrated the possibility of really rapid communication between India and England. At a time when Imperial air routes are in course of formation, this is a valuable proof, and should serve to open the eyes of the general public at home and in India to the vast saving in time which the aeroplane can effect.

In order to demonstrate that merchandise can be speedily carried by air, Captain Barnard had on board as cargo a large case of tea, and it is, perhaps, significant that this was the cargo which, before the days of

steam, gave rise to some of the keenest competition in fast travel, the old "China Clippers" racing home from China with the first of the season's tea, and considerable profits being the reward of the clipper which first reached London. As to whether the "cargo" carried by the "Princess Xenia" was such as to make the flight a commercial undertaking, it were, perhaps, better not to enquire too closely, nor, we think, does that greatly matter for the purpose of a demonstration of this kind. To have thought of making tea the cargo was rather a neat touch on Captain Barnard's part. And there is little doubt that in the near future we shall, if the authorities do their duty to British Empire aviation, have the modern equivalent of the old-time races between the "tea clippers."



The Motor Cycle of the Air In our Editorial Comment of August 30, 1928, we expressed the view that a demand exists for a cheaper type of

light aeroplane than any now on the market, and that to get the price down to a figure within reach of many of those who have recently learnt to fly, the "motor cycle of the air" would have to be a single-seater. It was realised that nearly every pilot who can afford to do so will buy the two-seater in preference, but at present no "second best" choice exists which could satisfy those able to pay £300 or so for a machine, but not able to pay the higher price of the present deservedly popular two-seater.

Our Comments have attracted considerable interest, judging from the amount of correspondence on the subject which has reached us, and it is perhaps significant that one correspondent, who has had a good deal of practical experience in aircraft design and has in the past produced a considerable number of successful machines, writes to tell us that several months ago he came to the same conclusion, and set to work to design a machine to meet the requirements. The machine, our correspondent informs us, has now been completely designed in detail, stressed, &c., and perhaps the following information concerning it may be of interest in showing what an experienced designer considers can be done along these lines. At the moment the machine is not being built, but the very fact that the designs are ready shows that practical people are aware of the need for such a type and are prepared to supply the designs.

The design to which we refer is for a small all-enclosed monoplane single-seater designed for the A.B.C. "Scorpion" Mark II engine. The wing span is 25 ft. 8 in., and the overall length 16 ft. 7 in. As the wing is arranged to fold, the width for housing purposes is only 7 ft. 6 in. The designed tare weight of the machine is 425 lbs., and the gross weight 700 lbs. The calculated top speed is 105 m.p.h., and the landing speed 40 m.p.h. At a cruising speed of 85 m.p.h. the estimated range in still air is 340 miles, for a total petrol consumption for that distance of

8 gallons, or more than 40 miles per gallon! Allowance has been made for 20 lbs. of luggage. Our correspondent states that for an additional weight of 150 lbs. the range can be extended to 1,000 miles with very little sacrifice in performance. Finally, he estimates that such a machine could be built to sell at a reasonable profit for £300.

It would thus seem that our original estimates were not very far out, and if the performance which has been estimated can be attained (and in view of the previous experience of our correspondent we see no reason to doubt it), such a machine should find a very considerable market.

In all probability there are several other designers who have looked into the subject, and we should like to hear from them, and also from potential purchasers of a machine of this type as to whether the performance, dimensions, etc., would be considered satisfactory for the price contemplated.



French Aviation

The untimely death recently of M. Bokanowski, who lost his life in an aeroplane accident, has resulted among other things in a re-opening of the problem as to whether or not France is to have a separate Air Ministry. It may be recalled that for a very large number of years France had an Under Secretary of State for Air, the post being held in successive governments either by M. Pierre Etienne Flandin or M. Laurent Eynac, both of whom proved themselves thoroughly capable men and possessed of the organising ability and technical knowledge to ensure the effective organisation of France's aviation policy. When the present French coalition government came into power about two years ago, the urgent need for financial economies made it necessary to abolish all the Under-Secretaryships, and M. Laurent Eynac, who occupied the post at the time, was obliged to relinquish his office, not without very great regret among French aviation circles in which he had become both popular and respected.

What decision the French cabinet will ultimately take is uncertain at the moment. That there has been a growing dissatisfaction with the system in force during the last two years cannot be denied, and criticisms are being freely voiced of rivalry, overlapping and waste under the system by which the responsibility for French aviation is divided among the Army, the Navy, the Colonial Office and the Ministry of Commerce (the latter having at present control of civil aviation). It is, perhaps, doubtful that France will "go the whole hog" and decide to establish a separate and independent air force. But there is little doubt that the unification of the responsibility for aviation will come into being. It seems likely that a political head will be appointed, who will probably have under him an Under-Secretary for Air, and it is generally believed in French aviation circles that the latter post will revert once more either to M. P. E. Flandin or to M. Laurent Eynac.

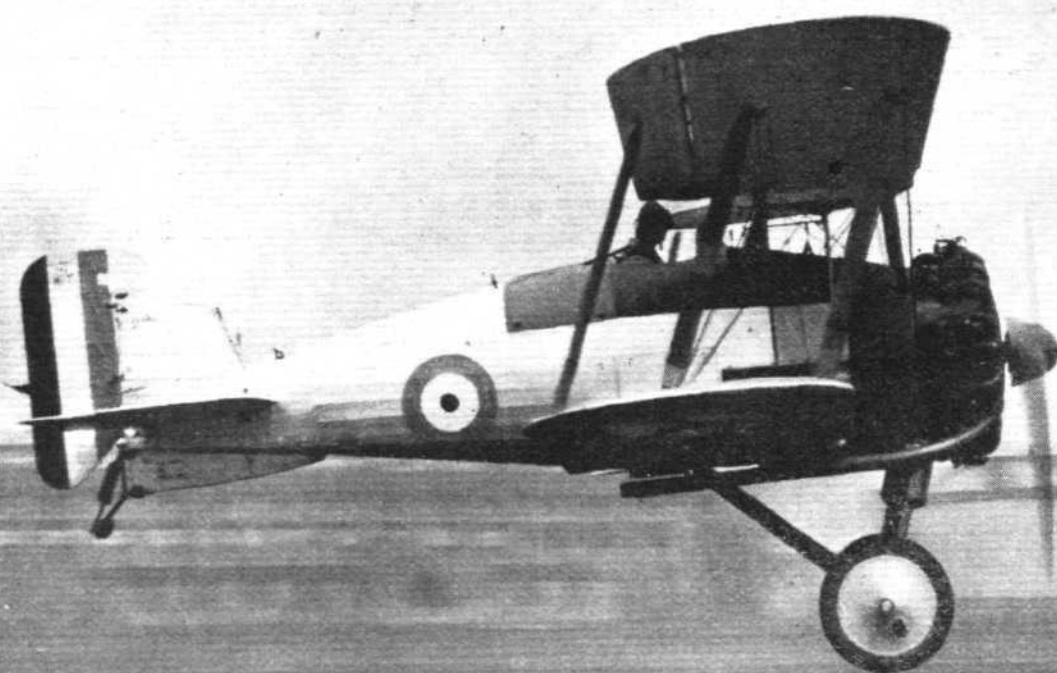


Atlantic Plane Wreckage Found?

A PART of an aero engine has been recovered from the ocean bed by a fishing vessel, 40 miles south-east of Cape Cod, and it is believed to belong to Mrs. F. W. Grayson's Sikorsky amphibian which was lost during an Atlantic flight last December.

The Autogiro to Visit Paris

ALL being well, on September 18, Señor de la Cierva will fly from Croydon to Paris in an Autogiro. As at present arranged it is proposed that he will fly in company with an Air Union machine, from which it is hoped to film and photograph the Autogiro during its flight.



FORE! Two views secured some little time ago of the "Gloster Gamecock II" with Bristol "Jupiter" engine at full speed. Our photographer is still with us.

"FLIGHT" Photographs

THE "AMERICAN MOTH"

WHAT the makers describe as a "light plane for heavy duty" has recently been put on the American market by the Vulcan Aircraft Co. of Portsmouth, Ohio. This machine, which is called the "American Moth," is a two-seater, high-wing monoplane of undoubtedly pleasing lines, and is selling at \$2,500. It is intended for business or pleasure and for club use, and was designed by Mr. John Pavlecka.

The fuselage is of welded steel tube construction, rigidly braced—without any use of wires—so as to obviate the necessity for frequent inspection and truing up. It is of rectangular section at the nose, trapezoidal at the cockpits, tapering thence to a vertical knife-edge at the rear. The engine mount, which is detachable by means of four pins, is of steel tube, welded, behind which is an aluminium fire wall.

The cockpits are arranged in tandem, the front one (below the wing) being accessible by means of a door and steps, located on the port side of the fuselage; steps on the same side of the fuselage are provided for the rear cockpit. Both cockpits are upholstered in imitation leather, and plywood is used for the flooring. Dual control is provided, of the conventional stick-and-pedal type. Either set of controls can, if desired, easily be rendered inoperative by removing one of the sticks and disconnecting the pedals—a matter of removing

of a high-lift section and covered with fabric. They have an area of slightly more than 12 sq. ft., thus contributing about 80 lbs. of lift to the machine at a very slight increase in resistance.

In designing the tail unit careful consideration was given in providing surfaces of generous proportions, and at the same time in keeping the weight and resistance down to reasonable figures. Spars and edges are of steel tube, and the ribs are of sheet steel, formed to section and lightened. All joints are welded, and spars are reinforced where the horns are attached. The vertical surfaces are internally braced, while the stabiliser and elevator are braced by means of a streamline section strut on each side.

The stabiliser is adjustable, through a range of 4° plus and 2° minus, by means of a lever and ratchet located on the port side of the rear cockpit. Control is by means of a duralumin push rod, and the machine can be flown safely without using the elevator control—although, of course, the real purpose of the adjustable tail is to vary the trim of the machine at will.

Elevator control is by means of a large duralumin tube directly connected to the rock shaft unit and the elevator horn, thereby eliminating unnecessary working parts and constant attention or adjustment. The elevator horn is



THE "AMERICAN MOTH" MONOPLANE : Side view of an American light plane, a two-seater sport or training machine fitted with a 60 h.p. Le Blond 5-cyl. air-cooled radial engine.

three pins conveniently placed. Spring clips provided on the sides of each cockpit serve to hold the sticks when not in use.

The high-lift wing unit comprises a short centre section and two outer panels braced by V-form lift struts. The centre section, which contains the fuel tank, is supported above the fuselage by a cabane of streamline steel struts. As will be seen from the general arrangement drawings, the wing panels are tapered, not only in plan form, but from the point of attachment of the bracing struts to wing-root and wing-tip respectively, thus giving the utmost aerodynamic and structural efficiency.

Wing spars are of best selected spruce, of two-piece laminated box type, and are solid sections at points of location of important wing fittings. A very rigid wing structure is obtained owing to the large depth of spars, in conjunction with the double drag bracing tying the tops and bottoms of the spars together. Drag bracing is by means of duralumin tube struts and hard wire, tension members in form of Pratt truss; the wires are doubled. The ribs are of sheet duralumin. Ailerons, of ample proportions and of similar construction to the wings, are hinged to auxiliary spars so as to make an airtight joint. They are operated by means of cables attached to the rock-shaft lever which actuate duralumin push rods within the wings, thence by bell cranks to the aileron horns.

The V lift struts are round steel tubes, faired in with ribs

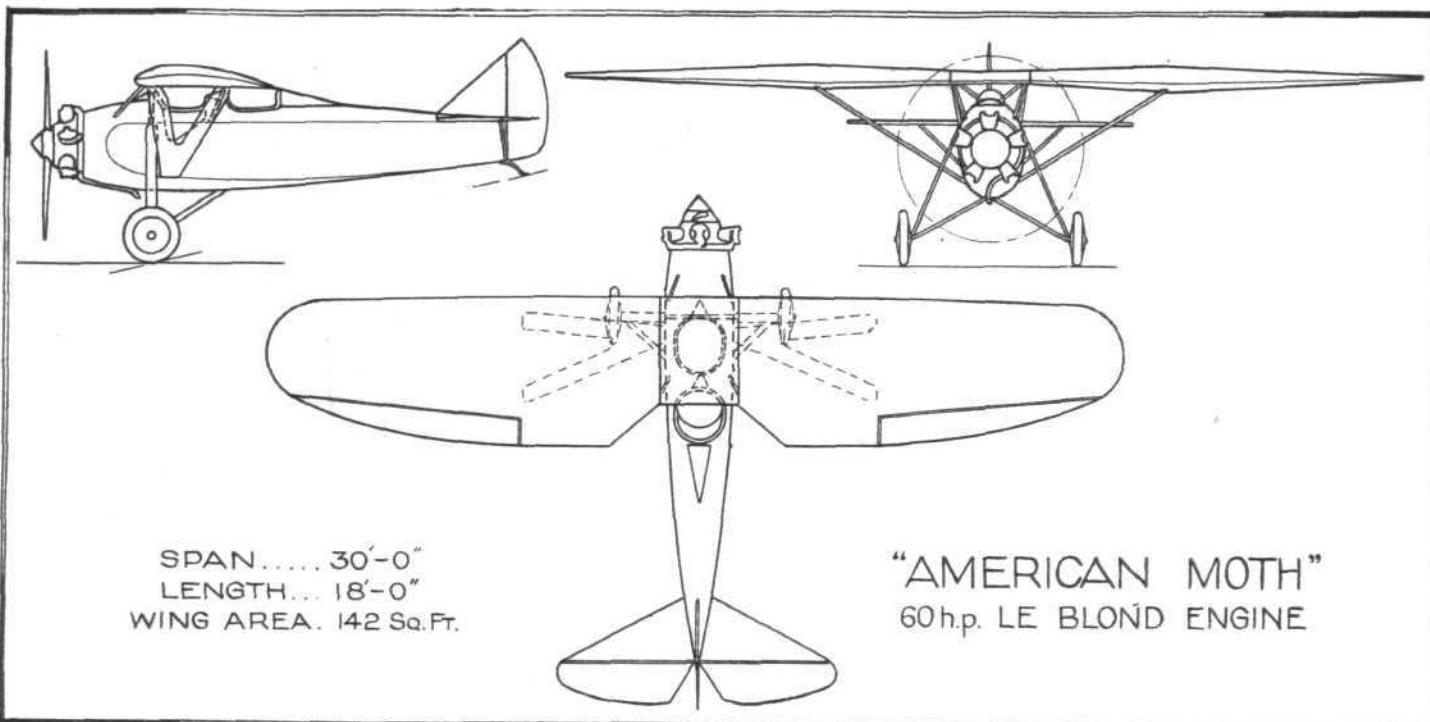
located inside the fin to reduce resistance, and a pyralin inspection door is provided. The rudder is actuated by means of flexible steel cables, between the pedals and the horn, no pulleys being required.

The machine is covered with Grade A fabric, slip-on type, sewed in place, and metal members are wrapped with tape to protect the covering. All covering is given a finish of five coats of clear dope and two of lacquer.

An undercarriage of the split axle-cum-rubber cord shock absorber type is fitted, well forward, and with a wide track (6 ft.). It has been designed for the use of brakes, which are supplied as optional equipment. The wheels are 24 in. by 3 in., wire spoke type, with aluminium disc streamline covers. The tail skid is of the leaf spring variety. The shock-absorber struts and axles are of steel tube faired to streamline form, while the radius struts are streamline steel tubes.

The power plant consists of a Le Blond 60 h.p. 5-cyl. air-cooled radial engine—or a 90 h.p. 7-cyl. model of the same make—but the 60 h.p., 80 h.p. Anzani, and the 70 h.p. Ryan-Siemens engines can also be installed. The engine and cockpits are well cowled with heavy sheet aluminium, while the exhaust is led through a collector ring which outlets below the fuselage. The Hartzell airscrew is equipped with a spinner hub and aluminium nose cap.

Fuel is fed by gravity from the 25-gallon tank in the centre wing section, and a 3-gallon oil tank is located in front of the fire wall just over the engine mount.



THE " AMERICAN MOTH " MONOPLANE : General arrangement drawings.

The equipment of the "American Moth" includes fire extinguisher and first-aid kit. It being customary to fly the machine from the rear cockpit, all instruments are located here, and consist of a unit-board made by the Consolidated Instrument Co., with altimeter, tachometer, oil pressure gauge and oil temperature gauge which are enclosed within a lighted panel.

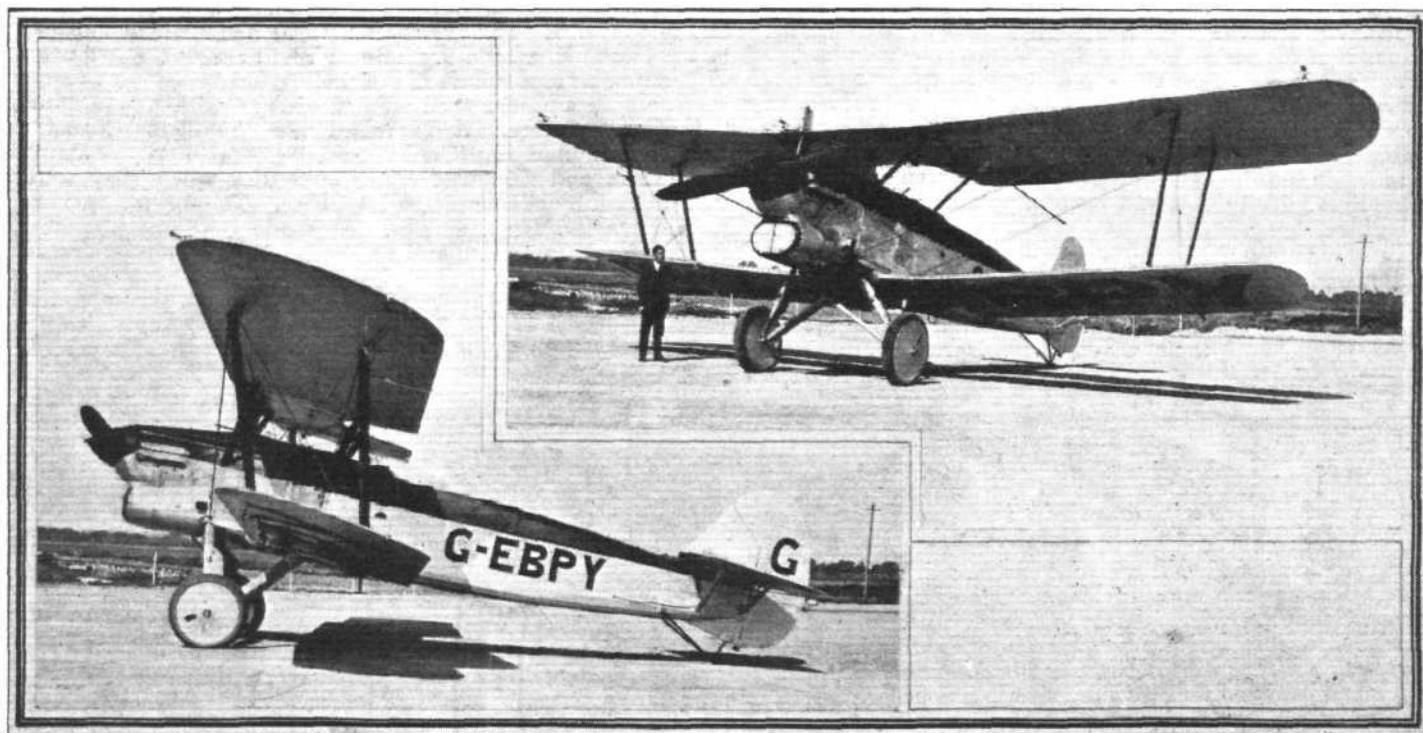
The principal characteristics of the "American Moth" (60 h.p. Le Blond) are :—

Span	..	..	..	30 ft. 0 in.
Overall length	..	..	..	18 ft. 0 in.
Overall height	..	..	..	6 ft. 9 in.
Wing Area	..	..	..	142 sq. ft.
Weight empty	..	..	..	660 lbs.

Disposable load ..	..	..	540 lbs.
Normal weight loaded ..	..	..	1,200 lbs.
Weight per h.p.	..	..	20 lbs.
Weight per sq. ft.	..	..	8.4 lbs.
Speed range ..	..	..	38-105 m.p.h.
Climb at sea level ..	..	..	750 ft./min.
Service ceiling ..	..	..	10,000 ft.
Normal range ..	..	..	400-475 miles.
Normal fuel consumption at cruising speed (80 m.p.h.) ..	..	..	4½ gallons per hour.

Everling Quantities:

High-speed figure ..	..	..	15
Distance figure ..	..	..	4.9
Altitude figure ..	..	..	4.9



ENGLAND-ROUMANIA IN A VICKERS' "VIVID": In connection with some demonstration flights given by aircraft firms of various countries to the Roumanian Government, a splendid flight was made by Flight-Lieut. J. Scholfield on a Vickers "Vivid" long distance Reconnaissance machine (Napier "Lion") shown above. Leaving Weybridge just before 6 a.m. on September 6, he passed over Brussels 18 mins. later and landed at Nuremberg at 9.55 a.m. After a short stop he proceeded over Austria-Hungary to Belgrade (2.55 p.m.) and reached Bucharest at 5.55 p.m. (E.S.T.) ; thus covering over 1,300 miles in 10 hours.

THE INDIA-ENGLAND FLIGHT

5,000 Miles in $4\frac{1}{2}$ Days

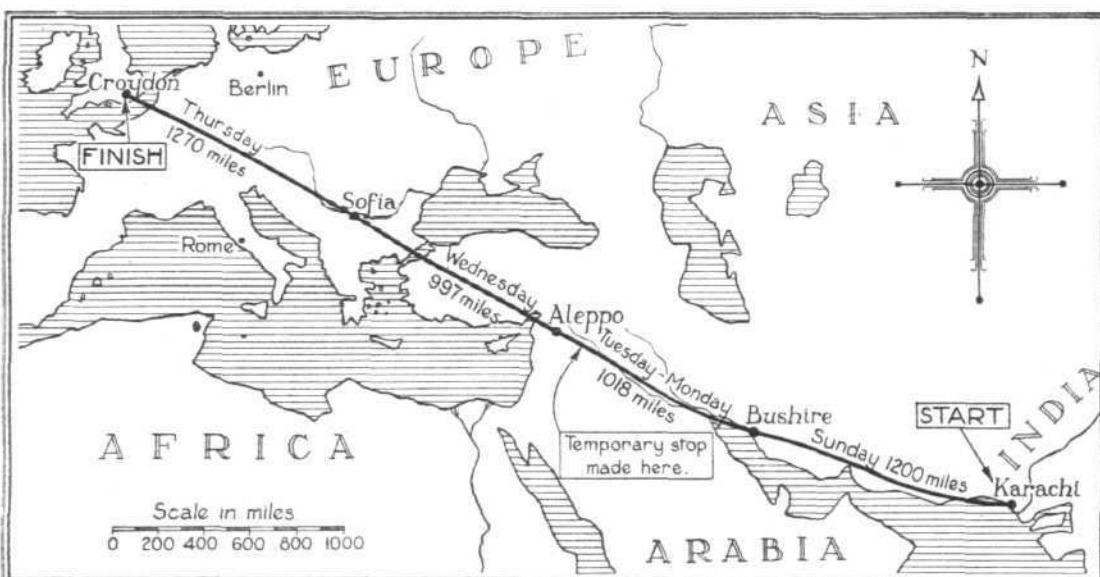
ENGLAND has set up a British record for the flight from India to England. Just after dusk on September 6 Capt. C. D. Barnard and Flying-Officer E. H. Alliott brought their Fokker monoplane, "Princess Xenia," down at Croydon aerodrome, only $4\frac{1}{2}$ days after starting from Karachi. In four long hops they covered in all nearly 5,000 miles during that time. The start from Karachi was made at dawn on Sunday, September 2, and the first stage was one of 1,200 miles to Bushire. The next day, Monday, they took off with the intention of flying the 1,018 miles to Aleppo, but owing to being delayed by head winds they had to land in the desert.

Aleppo was reached the next morning, Tuesday, September 4. Sofia, a distance of 997 miles, was their next stage, which was accomplished on Wednesday, September 5. The last stage was the longest, right across Europe for 1,400 miles

Alliott, also greeted them. Capt. Barnard said that the object of the flight had been to show the possibility of establishing a fast passenger mail and goods air service between Britain and India. As an example of how rapid transport of merchandise by air could be, they carried a large case of tea.

The triumph of this flight, despite the fact that it was a Fokker machine, is greatly to the credit of this country, for the pilots are both Englishmen, and the Bristol "Jupiter" engine, which had K.L.G. plugs, was the mainstay of the great effort. The flight shortens certain previous times over the same distance by nearly three days—excluding Lieut. Koppen's four-days outward flight in 1927. It will be readily recalled that early this year Mr. Bert Hinkler flew from London to India in his Avro "Avian" ("Cirrus") in seven days, which was a minor triumph in his ultimate accomplishment.

Sketch map showing the route taken by Capt. Barnard on his flight from India to England.



to Croydon, where the landing was made in all the picturesque setting for night landing. The aerodrome boundary lights were flashing and the buildings were tinged with the glow. On the roof of the aerodrome hotel crowds of people waited.

It was at 8.5 p.m. that the siren signalled that the monoplane had been sighted from the control tower. Very soon there was the murmur of the Bristol 500-h.p. "Jupiter" air-cooled engine, and then the monoplane could be observed silhouetted in the dim light of the sky. After circling Croydon aerodrome it glided down and made a perfect landing in the flood-light.

As it taxied up to the aerodrome buildings there were cheers from the crowd as Capt. Barnard and Flying-Officer Alliott climbed down from their cockpits after the long flight from Sofia. Col. Ivor Edwards, representing the Air Ministry, received them, and their wives, Mrs. Barnard and Mrs.

Then last year, the American airmen, Mr. Brock and Mr. Schlee, also reached Karachi from Croydon in seven days in the course of their attempted world flight which finished in the Far East, after a preliminary flight across the Atlantic.

The Fokker monoplane that Capt. Barnard used has figured in previous ambitious attempts, always with the Bristol "Jupiter" engine. It is called the "Princess Xenia," and it was used on the Atlantic flight attempt of Capt. MacIntosh and Commandant Fitzmaurice when they were driven back by extremely bad weather. The former, accompanied by Mr. Bert Hinkler, also made that fine non-stop flight with it from England to Poland in very unfavourable weather conditions.

It was the original purpose of Capt. Barnard, accompanied by the Duchess of Bedford and Flying-Officer Alliott, to fly from England to India and back in eight days. They took



"Princess Xenia," the Fokker monoplane, fitted with a Bristol "Jupiter," which made the India - England flight.

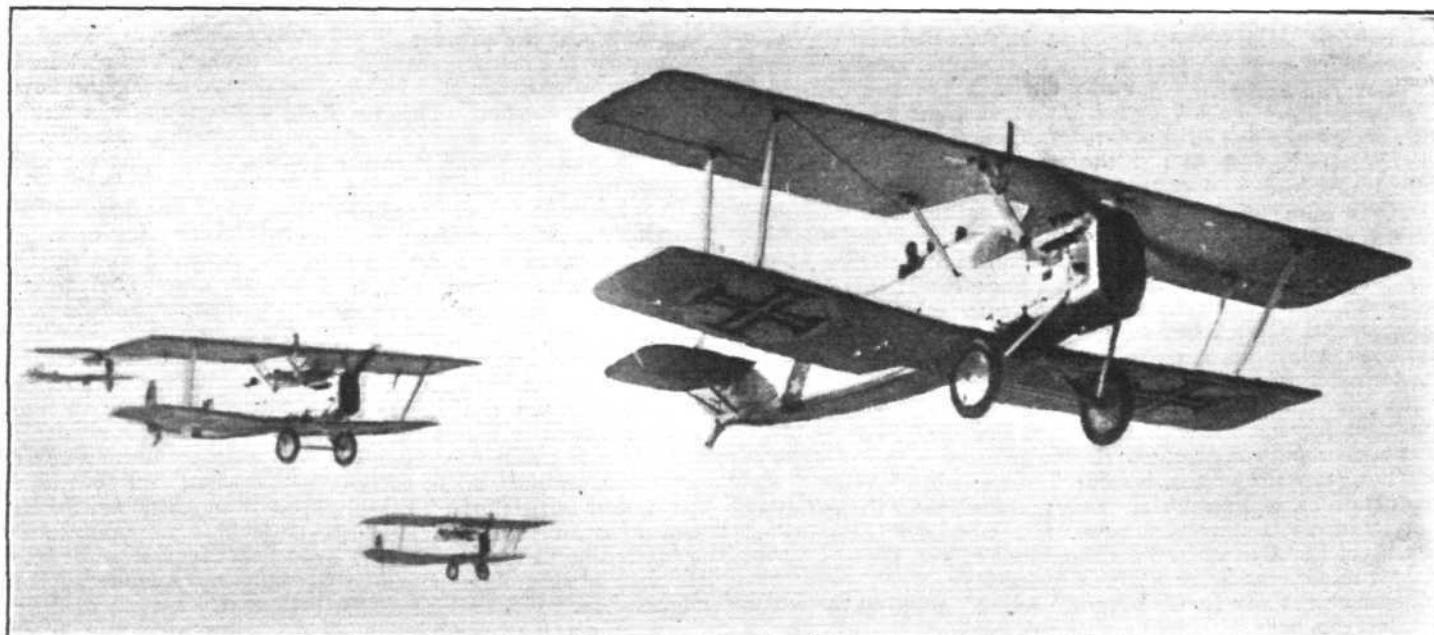
off from Lympne aerodrome on June 10 and completed a non-stop flight to Sofia. They then went on to Bushire, and there met an unfortunate delay. Finally, on August 22, the last stage from Bushire to Karachi was completed. On arrival at Karachi it was found that a new propeller would be necessary for the return journey, and the Duchess of Bedford therefore decided to return to England by steamer. The Duchess of Bedford is an enthusiastic private owner with a private aerodrome at her seat in Bedfordshire and also in Scotland. She owns a D.H. "Moth" and has covered many thousands of miles since taking up aviation a few years ago. To have accompanied the expedition on this attempted dash for India was a notable act.

THE PORTUGUESE FLIGHT TO AFRICA

ON September 5 an interesting flight to Africa commenced, when four Portuguese airmen set out from Lisbon in an attempt to fly to Mozambique, by way of Portuguese Guinea, Angola, thence across Central Africa. The airmen taking part in this venture—the first attempt to be made by Portugal to link up by air the mother country with her African colonies—are Capts. Pais Ramos and Oliveira Viegas, who are accompanied by Lieut. Esteves and Serg. Manuel Antonio. They are using two Vickers "Valparaiso" biplanes fitted with Napier "Lion" engines, which type of machine forms part of the equipment of the Portuguese Military Air Service.

long distance flying, having taken part, with Capts. Pinheiro Correia and S. da Silva, in the Lisbon—Portuguese Guinea flight of 1925.

In the present flight the route to be followed is as follows—Casablanca, Bulama (P. Guinea) then inland to Kayes, Bammako, Sikasso, Buake, Bingerville, and Accra (Gold Coast); the coast will again be followed via Danala, Port Gentil, Pointe Noire (Gabon), to Luanda Angola. Here the journey across Africa starts, by way of Benguela, Silva, Porto, Elisabethville, Broken Hill, Tete, Beira and Lourenco Marques.



THE PORTUGUESE FLIGHT TO AFRICA: Four Vickers "Valparaiso" (Napier "Lion") biplanes of the Portuguese Military Air Service, the type on which Capts. Pais Ramos and Oliveira Viegas are flying from Lisbon to Mozambique via Portuguese Guinea and Angola.

The two "Valparaiso" machines carrying out this African "raid" are from the Aviation Squadron "República," and the four airmen are well known figures in Portuguese aviation. Capt. Pais Ramos, who is leading the expedition, is one of Portugal's foremost airmen, being not only a skilful and daring pilot, but possessing also great technical knowledge. He is accompanied by Lieut. Esteves, who was associated with Admiral Continho and Major Castilho—two names famous in Portuguese aviation.

Capt. Viegas and his companion Serg. Antonio, who form the crew of the second machine, are both experienced in

It will be seen, therefore, that certain sections of the route—from Bulama to Accra, and from Luanda onwards—cover entirely new ground in so far as aircraft are concerned, although points will be touched where aircraft have already penetrated by Belgian pilots, Sir Alan Cobham, etc. Thus, the flight will be followed with considerable interest. The distance covered will be over 7,000 miles, and if the venture is successful the airmen will receive a substantial prize offered by the Portuguese Colonies.

As previously stated, the four airmen left Lisbon on September 5, and arrived at Casablanca the same day.

Low Flying at Hamble

SIR SEFTON BRANCKER, Director of Civil Aviation, held an inquiry, on August 31, at Hamble into the complaints of the Hampshire Club's low flying over that village. Local opposition to low flying had come to a head the day before, when Miss B. Grace crashed after striking a tall flag-pole at the end of a garden belonging to Mr. Finlay Smith. Sir Sefton stated that if people objected to the noise made by the machines passing over the village they would have to grin and bear it, just as people living by the side of a road had to put up with the objectionable noise of motor traffic.

The Air Ministry regarded the aerodrome as perfectly safe, and that was the end of their responsibility. When a local resident then stated that he proposed to erect a flag-pole and connect it with the pole in a near garden, Sir Sefton Brancker said that it was extremely dangerous, and he was not sure the resident would not be liable to a charge of manslaughter if there was a bad crash. Dr. Cunningham Brown, another resident in the village, stated that all the residents were not concerned in the petition. Sir Sefton Brancker is, we understand, giving further consideration to the question.

ORLY LIGHT 'PLANE MEETING

Orly, France, Sunday, September 9. In glorious sunshine the preliminary arrangements for the French International Light 'Plane Competition were run through today with haste and keen interest at the Orly Aerodrome, south of Paris. Although, nominally, there was no active programme scheduled apart from the arrival of the machines before 3 p.m., there has been quite a crowd of spectators and they were lucky enough to be the witnesses of an impromptu display of aerobatics by Flying-Officer Atcherley, the R.A.F. officer so well-known for his duets with Flying-Officer Boyle in England. Atcherley flew Flt.-Lt. Soden's "Genet-Moth" "OU" and he excelled himself with exceptionally low rolls and attempts to describe the outside loop. The first two efforts just failed and resulted in two spectacular tail slides after an appreciable suspension in mid-air in the vain struggle to bring the tail under and up. He succeeded at the third attempt, which roused characteristic enthusiasm amongst the French, who included many well-known pilots, here for the competition. They were professionally impressed. Atcherley brought his display to a skilful end by crazy flying to earth. His engine was not quite giving him the required revs. to complete his primary efforts.

Entries

There were 25 original entries but it is unlikely that more than 17 will compete. Of this number England is represented by five machines. They are Lady Heath's Avro "Avian" (Cirrus III) G-EBZM, Capt. N. Stack on Avro "Avian" (Cirrus Mk. III) G-AAAT, Capt. E. W. Percival on Avro "Avian" (Cirrus Mk. III) G-EBYR, Capt. H. Broad on D.H. "Gipsy-Moth" G-EBYK, and Flt.-Lt. N. Comper's C.L.A.4. This morning when taking off for a test flight his engine cut out, seemingly due to magneto faults, a few feet up, leaving no alternative but to put the machine down as it willed. The result was a damaged chassis and fuselage. Luckily the French mechanics have promised to actually make another fitting, put new tubes in and bands, and have the machine ready by 10 a.m. tomorrow (Monday) the first day of the competition, in which case it will compete. If this repair is accomplished it will be a real sporting action and imply considerable mechanical skill. Fortunately, they happened to have the suitable gauge material at hand and had completed half the fitting this afternoon (Sunday).

The weighing in of the machines produced primary alarms amongst our machines. After Capt. Broad's "Gipsy-Moth" had successfully conformed to the maximum tare weight of 880 lbs. (400 kgs.) Capt. Neville Stack's Avro "Avian" was found to be 2 kgs. over. His machine was immediately subjected to weight reduction, the cushions being taken out. On the second test it passed and it was found that no weight reduction had really been necessary.

Meanwhile Lady Heath's Avro "Avian" went on the scales 3 kilos too heavy. Bustling round feverishly, Lady Heath and her mechanic took off three of the exhaust pipes and also the Jury struts and a tin of gadgets from the locker. When this effect was tried the extraordinary result was 15 kilos under weight! Of course, the mystery was due to a mistake in the original weighing test. The exhaust pipes, Jury struts etc., were re-installed and the machine passed.

Incidentally, Lady Heath landed here last night in darkness, after the flight from Lympne. Her passenger was her secretary. She was obliged to fly to Le Bourget this morning to clear customs.

Capt. Percival's Avro "Avian" has to go on the scales—



Sir Eric Geddes's Aerial Cruise

SIR ERIC GEDDES, chairman of Imperial Airways, has arranged a four-days' pleasure cruise, in a flying-boat, round the western seaboard of Great Britain. For this he has chartered from Imperial Airways the three-engined, all-metal Short "Calcutta" flying-boat (Bristol "Jupiters"). His guests during the cruise will be his three sons, his brother, Sir Auckland Geddes, Miss Isabel Goring, Miss Josephine Wray, and Col. and Mrs. F. R. Browning. The cruise, which is scheduled to start from the air port at Southampton on September 14, will cover the following route:—Friday, Weymouth, Bridgwater, Tenby (lunch), Anglesey, and the Isle of Man, to Loch Ryan at Stranraer. Saturday: visit to Lord Inchcape (at Glenapp Castle) via Ballantrae, thence to Ardtaraig, Loch Striven, when the party will be the guests of Mr. Irvine Geddes. After this, the cruise will take the form of a "go-where-you-please" one, visits being made to

at the moment of writing—but he thinks it is lighter than Lady Heath's, and will, no doubt, be able to make adjustments if necessary.

Capt. Broad came down this morning, having spent the night during the flight from England at Berck. Capt. Stack arrived last night.

It should be mentioned that Flying-Officer Atcherley is not here with the Genet Moth for the purpose of entering the competitions.

Flt.-Lt. R. R. Bentley was an entry with a D.H. "Moth" (Cirrus III), but he has not arrived.

French Entries

The French machines naturally predominate in this competition in numbers. For instance, there are no fewer than six Caudron monoplanes entered. They are C. 109 (Salmson 40 h.p. engine); C. 110 (Salmson 60 h.p.); C. 114 (Anzani 50 h.p.); C. 113 (Anzani 70 h.p.); and C. 109 (Salmson 40 h.p.).

The first four have been entered by M. René Caudron, and his nominated pilots are M. Delmotte, M. Vanlaere, M. Masson, and either M. Gauron or M. Ningler. The fifth Caudron monoplane has been entered by Assurances Syndicales des Grands Groupements Regionaux, and the nominated pilot is M. Marcel Avignon. Yet a sixth Caudron will be flown by M. Maurice Finat, the French pilot, who recently set up a new endurance record for light aeroplanes. A Salmson 40 h.p. is the engine.

A very interesting entrant is the French Pevret-Nessler monoplane (Salmson 12/15 h.p.). It will be entered and flown by M. Eric Nessler. This machine was originally a glider. The large centre section of the wing has celluloid covering the spars and ribs, making it transparent, and allowing the pilot a wide upward view.

A French "Albert" parasol monoplane entered by the Société des Avions Albert is attracting much attention. It has a complete three-ply covering on the wing and on the fuselage. The engine is a Salmson 40 h.p. This single-seater has an estimated factor of safety of 14. The first pilot is M. Fisbach, and second pilot M. Magnard.

There was a machine in the programme called an Albert monoplane fitted with an Armstrong-Genet 80 h.p. engine, but it has not turned up. Baron Paul Perignon was the entrant, and M. Edouard Albert the pilot.

A French cabin monoplane is competing. It has a windowed cabin built up to the cantilever wing, and accommodates two with perfect ease, placed diagonally across the cabin. The machine is called the Guerchais monoplane, and is entered by the Avions Legers Guerchais-Henriot, of France. It looks a very large machine for only an Anzani 50 h.p. engine. M. Guerchais himself will pilot it.

There is a Klemm-Daimler (20 h.p.) low-wing monoplane entered by Carl Sonning of Germany, and also a Klemm fitted with a 40 h.p. Salmson engine, entered by the manufacturers and to be flown by Robert Lusser. Both machines are two-seaters.

During the afternoon, a Pander biplane (Walter 60 h.p. engine) belonging to the Rotterdam Aero Club, dropped in out of natural curiosity, after flying from Le Bourget, where it happened to have made a visit. In it were M. H. Pander (Jnr.) and Schmidt Crans, Chief Instructor of the Rotterdam Club, which now has three Pander biplanes. They left soon to return to Rotterdam.

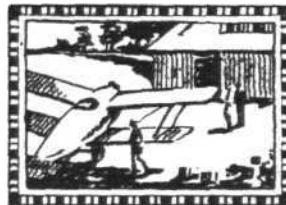


various beauty spots, such as Loch Lomond, Oban, etc., concluding at Liverpool, where the "Calcutta" will be employed on an experimental service to Belfast.

Capt. Harry Spencer Killed

We regret to record the death, as the result of an accident, of Capt. Harry Spencer, the well-known balloonist, and head of Spencer Bros. The accident took place on September 9, at Rugby, where, in connection with a hospital fête, Mr. Percival Spencer was making a balloon ascent. The balloon had only just ascended when, owing to a heavy fall of rain, it fell on to the roof of a house. Mr. Spencer climbed safely to the ground, but later his father, Capt. Spencer, climbed on to the roof by a ladder, in order to free the balloon. While doing so, he apparently slipped, and fell to the ground and was instantly killed, in spite of the gallant effort by Mr. W. J. Verrier, of the St. John's Ambulance, to catch him.

PRIVATE FLYING



A Section of **FLIGHT** in the Interests of the Private Owner, Owner-Pilot, and Club Member

PRIVATE OWNER'S "ARABIAN NIGHT"

AFTER only eight hours' experience of solo flying, Lieut.-Commander H. C. MacDonald, D.S.C., R.N., decided to undertake a solo air tour covering France, Italy, Egypt, Arabia, Mesopotamia, Palestine and Syria. In his own D.H. "Moth" he started from Stag Lane aerodrome and soon ran into thick fog south of London, but in spite of that preliminary disadvantage, Paris was reached that night, and the Commander stayed there a day or two. On resuming, he went to Dijon and then Marseilles the following day, where he met Dr. Clavell of Basel, and Mr. Koepke, Director of the Société Aviatik Beider Basel, of Basle-Birsfelden, who were flying to Naples in the former's light aeroplane. In company, the two machines flew on to Pisa and eventually reached Naples in very bad weather the day after.

Commander MacDonald then left for Catania, Sicily, and eventually reached Benghazi by way of Malta and Tripoli. Authorities at Benghazi attempted to detain him owing to the unfavourable weather, but in spite of that he flew on to Aboukir in a 50-m.p.h. side wind, which took 9 hours. Cairo was the next stage, where he met Lieut. Bentley, A.F.C., then engaged in his flight from Cape Town to London. When at Amman later, terrific bumps were encountered in the neighbourhood of the mountains round Jerusalem.

A night was spent at Rutbah Wells, and during that night a car collided with the back of the D.H. "Moth," which was left in the open, effecting damage to the starboard elevator. This misfortune involved a 300-miles trek over the desert by car to Baghdad for elevator repairs at the R.A.F. depot. He returned to Rutbah Wells and succeeded in assembling his elevator with the help of an Imperial Airways mechanic. When he eventually left for Baghdad, bad storms prevailed, which forced a return to Rutbah Wells, where, on landing, the tail skid shoe was broken owing to the huge stones scattered all over.

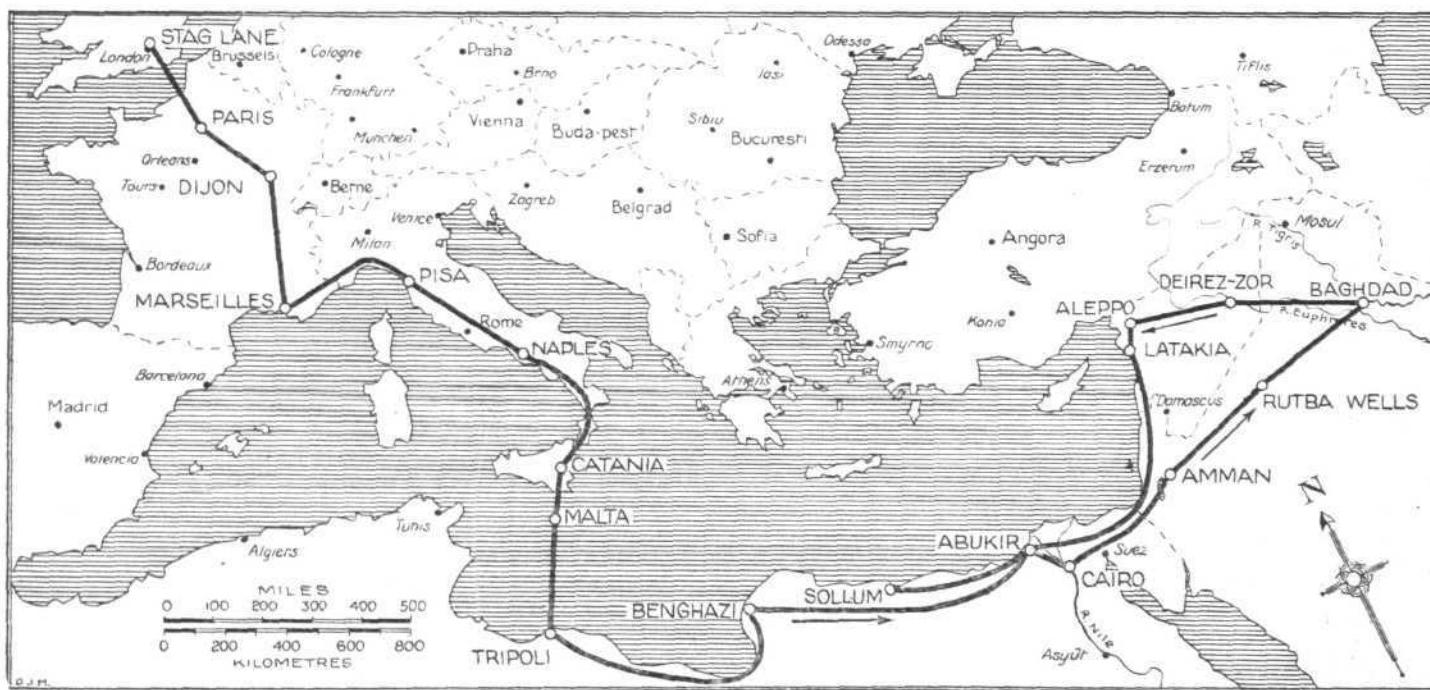
The next attempt to reach Baghdad was successful. As the machine had been left in the sun in a temperature of over 150 deg. for nearly a week, Commander MacDonald considered it advisable to have it looked over. At the same time a top overhaul of the engine was completed efficiently and good-naturedly by the Imperial Airways staff at Baghdad.

In the meanwhile he wired to India for weather reports and learned that the monsoons would begin before he could reach there, thus making it inadvisable to try for Burma. He therefore proposed to return via Turkey. When resuming from Baghdad sand storms compelled a forced landing at Deir et Zor on the Euphrates. At Aleppo there was the necessity of getting permission to fly over Turkey, and whilst waiting for this he decided to return via Cairo.

Accordingly, he left Aleppo, but had another forced landing owing to bad storms at Latakia, a night being spent there, followed then by the stage to Aboukir. A ten days' delay next ensued for the purpose of getting permission to fly over Tripoli. When he started again, engine trouble developed over the Bay of Sollum. Within gliding distance was the seashore, dotted, however, with little hills and boulders. There was, however, no alternative but to essay a landing, which was effected after clearing a low sea-wall.

As the Commander was subsequently working on the engine, Arabs appeared over the hill, and he saluted them, Italian fashion, which resulted in a friendly attitude. They crowded round the machine with great curiosity, and even helped to change a tyre. Even a kick by the Commander on one of them, provoked by mishandling the tyre, was taken in a philosophical spirit. The favourable moment was then seized to write a message to the nearest Italian outpost, and this was, surprisingly, taken.

The Arabic spectators waited to witness the take-off, and Commander MacDonald decided on strategy. He let them believe he was going to crash as a spectacle. This amused them greatly, and roused their expectations, but, unfortunately, the Commander had unintentionally forecasted the truth, instead of fiction, for he hit a large boulder and crashed heavily, though, happily, without hurting himself. The Arabs were naturally gratified, and responded by providing a horse and escorting him to their camp. Then the situation became threatening, for the "prisoner" was placed in the centre of a ring, and a council of war followed. Hospitality was not altogether forsaken, however, for some execrable tea was provided, although he added an antidote for fear of poisons.



PRIVATE OWNER'S SOLO EFFORT: Our map traces the adventurous route followed by Lieut.-Commander MacDonald, on his own D.H. "Moth," which he essayed after only eight hours' solo flying.

In the consequent animated discussion as to his future, in which he could take no part, he noted from the gestures that his fate was dallying on a fifty-fifty basis. Then appeared an old man, clearly of some importance, who was appealed to, but he only answered with an expressive gesture. The conference was broken up and the "prisoner" was invited to pass the night with overwhelming company in the Sheik's tent. He was allotted a recumbent position between the Sheik and his brother. In his own interests there was only a small lancet from his first-aid case. The company frequently woke up, and each time the terrible tea was administered. The ordeal became unbearable, and the "prisoner" requested permission to sleep in the aeroplane, which was refused, but the party left the tent and the Commander walked the Sheik and his brother up and down during the night until they were sick of him.

Fortunately, Italian armoured cars, with Italian officers, arrived from Bordia the next day and took him into safety, expressing the opinion that he was lucky in being alive. They sent him to Sollum after treating him with their usual courtesy. While the machine was on the sands it was sighted from the air by Mr. Van Lear Black, who was on his way from Athens in his Fokker monoplane. He dropped a bottle of water—a kindly act—responded to by the Arabs with a shower of sand. Mr. Black would have willingly flown the Commander to Cairo had not his machine been overloaded already. After reaching Sollum, Commander MacDonald drove 300 miles over the desert in a Ford lorry to Alexandria, caught an English boat the following morning, and within a week was in London. He regarded the whole adventure as a joke and the original story was only obtained from him after great resistance to his modesty.

LIGHT 'PLANE CLUBS

London Aeroplane Club, Stag Lane, Edgware. Sec., H. E. Perrin, 3, Clifford Street, London, W.I.
Bristol and Wessex Aeroplane Club, Filton, Gloucester, Secretary, Capt. C. F. G. Crawford, Filton Aerodrome, Patchway.
Cinque Ports Flying Club, Lympne, Hythe. Hon. Secretary, R. Dallas Brett, 114, High Street, Hythe, Kent.
Hampshire Aero Club, Hamble, Southampton. Secretary, H. J. Harrington, Hamble, Southampton.
Lancashire Aero Club, Woodford, Lancs. Secretary, F. W. Atherton, Woodford Aerodrome, Cheshire.
Liverpool and District Aero Club, Hooton, Cheshire. Hon. Secretary, W. F. Davison, 357, Royal Liver Building, Liverpool.
Midland Aero Club, Castle Bromwich, Birmingham. Secretary, Maj. Gilbert Dennison, 22, Villa Road, Handsworth, Birmingham.

Newcastle-on-Tyne Aero Club, Cramlington, Northumberland. Secretary, J. T. Dodds, Cramlington Aerodrome, Northumberland.
Norfolk and Norwich Aero Club, Mousehold, Norwich. Secretary, G. McEwen, The Aerodrome, Mousehold, Norwich.
Nottingham Aero Club, Hucknall, Nottingham. Hon. Secretary, Cecil R. Sands, A.C.A., Imperial Buildings, Victoria St., Nottingham.
The Scottish Flying Club, 101, St. Vincent Street, Glasgow. Secretary, Harry W. Smith.
Southern Aero Club, Shoreham Sussex. Secretary, C. A. Boucher, Shoreham Aerodrome, Sussex.
Suffolk Aeroplane Club, Ipswich. Secretary, Maj. P. L. Holmes, The Aerodrome, Hadleigh, Suffolk.
Yorkshire Aeroplane Club, Sherburn-in-Elmet, Yorks. Secretary, Lieut.-Col. Walker, The Aerodrome, Sherburn-in-Elmet.

LONDON AEROPLANE CLUB

REPORT for week ending September 9.—Flying time, 80 hrs. 55 mins. Dual instruction, 53 hrs. 5 mins.; solo flying, 27 hrs. 50 mins.
 Dual instruction:—A. O. Wigzell, A. J. Farfan, G. R. S. Charles, Dr. Cook, A. M. Leonard, Mrs. Cook, J. F. Wood, E. I. Puddy, A. C. Thomas, J. W. P. Chalmers, A. D. Blumlein, J. W. Radbone, Miss James, E. K. Blyth, J. E. Edwards, J. S. Whitborne, R. C. Woodcock, Miss Fletcher, H. Sutton, H. R. Presland, Miss Hicks, H. C. Bergel, B. Carey, R. K. Koratkar, E. T. Symmons, A. J. Richardson, C. J. Pool, T. Clarkson, S. Blythe, J. Harrison, A. Courtald, C. W. Bonnicksen, G. R. Mack, Mrs. Thatcher, W. W. Briscoe E. Davis, R. S. Ratray, L. W. Gibbens, G. F. Roberts.

Solo flying:—C. Campbell, P. H. Wills, J. D. M. Robinson, J. J. Hofer, P. W. Hoare, T. Elder-Hearne, W. L. M. O'Conner, W. Hart, O. J. Tapper, C. W. Bonnicksen, Lord Douglas Hamilton, E. T. Symmons, A. D. Blumlein, H. Sutton, W. T. Hay, J. H. Safrey, A. F. Burns, C. E. Murrell, J. W. P. Chalmers, B. B. Tucker, G. H. Craig.

The following members flew solo for the first time:—J. W. P. Chalmers, A. D. Blumlein, H. Sutton.

Passenger flights:—C. F. Goodeve, Miss Taylor, H. D. Wolfson, A. Watts, T. Scott-Taylor, Miss E. Terry, N. L. Sherlock, F. T. Carpenter, M. W. Dupessey, T. Darley, T. Osborn, S. T. T. Parsons, T. McDougall, G. L. Gray.

BRISTOL & WESSEX AEROPLANE CLUB, LTD.

REPORT for week ended September 8.—Total flying hours, 25 hrs. 15 mins. Instruction, under Mr. Travers: Messrs. Greenhill, Hibbert, Keeling, Neale. Under Mr. Bartlett: Messrs. Keeling, Neale, Miss Miles, Messrs. D. B. Singh, R. Clarke, King, Putnam, Hughes, Hibbert, Amory, Heaven, and Hon. C. Dutton. Under Mr. Tratman: Messrs. Heaven and Greenhill. Under Mr. Culverwell: Mr. Keeling.

Solo under Instruction: Mr. Amory and Mr. Neale.

"A" Licence Soloists: Messrs. Lynas, Hall, Keith-Jopp, Greenhill, Miss Miles, Capt. Brewer, and Mr. M. M. Singh.

Mr. A. H. Downes-Shaw returned on Tuesday from a fortnight's trip over France, Belgium, Holland, and Germany, in his private "Moth," G-EBST. He seems to have had a wonderful time, including a great flight up the Rhine from Cologne. On Thursday he left for Cornwall.

On Saturday, September 15, the Club will entertain at Filton about 60 lady applicants for the Air League Scholarship. Any visiting pilots from other clubs will be very welcome on that date, and the selection committee will be glad of their assistance.

HAMPSHIRE AEROPLANE CLUB

REPORT for week ending September 7.—Total flying time, 56 hrs.; dual instruction, 23 hrs. 40 mins.; "A" pilots, 15 hrs. 50 mins.; solo, 12 hrs. 35 mins.; passenger flights, 1 hr. 55 mins.; instructors' solo and tests, 2 hrs.

Total flying time for August, 181 hrs. 15 mins.; dual, 88 hrs. 55 mins.; solo, 17 hrs. 10 mins.; "A" pilots, 41 hrs. 20 mins.; instructors' solo and tests, 6 hrs. 5 mins.; passenger flights, 27 hrs. 45 mins.

Instruction, with Flight-Lieut. Swoffer and Mr. W. H. Dudley: Mr. Cambell, Mr. Bradley, Mr. Turner, Mr. Gordon Smith, Mr. Reuther, Lieut.-Comdr. Coveney, Mr. Scott Hall, Lieut.-Comdr. Cresswell, Mr. Milford, Mr. Tobutt, Mr. Buckley, Lieut. Couchman, Mr. Courtney, Mr. Weekes, Mr. Walker, Mr. Sturge, Miss Melville, Mr. Evans, Lieut. Des Graz, Mr. Brodrick, Mr. Evershed, Lieut. Coode, Mr. Richardson, Mr. Mattock, Comdr. Bell, Lieut. Donner, Mr. Hall, Lieut. Oswald, Mr. Craske, Mr. Makgill, Sqdn.-Ldr. Bradyl-Johnson, Mr. Endacott, Mr. Whittle.

"A" Pilots: Capt. Kirby, Mr. Michelmore, Lieut. Heath, Mr. Parker, Mr. Wills, Lieut. Oliver, Lieut. Kimmings, Mr. Sanders Clark, Mr. Bradley.

Soloists: Mr. Cambell, Mr. Sturge, Mr. Goldman, Lieut.-Comdr. Coveney, Mr. Curtis Nuttall, Mr. Wells, F.O. Holmes, F.O. Hughes, Comdr. Tower, Mr. Whittle.

Passengers: Mrs. Halfpenny, Miss Gordon Smith, Miss Mavin, Mrs. Michelmore, Mr. Tarver, Miss Till, Mr. Clements, Miss Melville, Mr. Marsh, Mr. Teiley, Mr. Whitelaw, Miss Hodges, Mr. B. Sturge, Mr. Abbott, Mr. Weston, Lieut. Lovett, Miss Peun, Miss Purvis, Capt. St. Barbe, Mrs. Swoffer.

We are pleased to report this week that four members have passed their tests for their "A" Licence, Messrs. Goldman, Cambell, Curtis Nuttall and Sturge. Lieut.-Comdr. Coveney did a successful first solo on Saturday. Owing to shortage of club aircraft, Lieut.-Col. Strange of the Isle of Purbeck Club kindly consented to the Simmonds "Spartan" being used at our Bournemouth branch on Wednesday for purposes of instruction. Mr. Grahame Gibbs, the Chairman of the Bournemouth Section, states that everyone was pleased with the "Spartan" and that they kept F.O. Banting busy all day.

ISLE OF PURBECK LIGHT AEROPLANE CLUB

REPORT for week ending September 8. Total flying time, 12 hrs. 20 mins. On Monday, the "Spartan" returned from Croydon with the "Cirrus" Mark III engine. She is now as virtuous in getting off as in pulling up, and as for climb—well, we are all studying astronomy.

On Wednesday, we lent the machine to the Bournemouth section of the Hampshire Aeroplane Club who would otherwise have had a blank week. We were glad to see our aeronautical discernment so enthusiastically endorsed by the Bournemouth members.

LANCASHIRE AERO CLUB

REPORT for week ending September 8.—Flying time, 24 hrs. 50 mins. Instruction, 12 hrs. 10 mins.; solo flights, 8 hrs. 10 mins.; passenger flights, 2 hrs. 20 mins. 50 mins.; tests, 1 hr. 40 mins.

Instruction, with Flight-Lieut. Todd: Serck, Weale, Goss, Hardy, Miss Baerlein, Davies, D. B. Ruddy, Taylor, S. Barlow, Garner, Ashworth, Focet, Allott, Hardy, Fallon, Caldecott, Eckersley, Faulkner, Greg, Mills, Hartley, and Rodman. With Mr. Cantrill: Faulkner, Eckersley, Serck.

Soloists (under instruction): Weale, Serck.
 Pilots: Cantrill, Hardy, Cohen, Caldecott, Michelson, Ruddy, Agar, Nelson, D. Lacayo, Mills, Meads.

Passengers, with Flight-Lieut. Todd: Mrs. Midgley, Miss Midgley, Miss Swithenbanks. With Mr. Meads: Palmer, Dane, Miss Baerlein. With Mr. Hall: Davies, Sellers. With Mr. Lacayo: Allott, Gort, Hartley, Mills.

MIDLAND AERO CLUB

REPORT for week ending September 8.—The total flying time, 50 hrs. 23 mins.; dual, 27 hrs. 35 mins.; solo, 18 hrs. 50 mins.; passengers, 2 hrs. 35 mins.; test, 1 hr. 23 mins.

The following members were given dual instruction by Flight-Lieut. Rose, D.F.C. and Mr. W. H. Sutcliffe: T. W. Wild, J. A. V. Cook, R. G. Welch, R. B. Laidlaw, D. N. Khatri, C. T. Davis, J. Williamson, L. H. Lee, L. V. Mann, S. Duckitt, T. H. Drury, J. K. Morton, P. M. Patel, J. Fitzgerald, F. J. Steward, J. W. Astley, M. Blakey, R. Ridsdale, H. Cole, Coleman, A. E. Colman, G. P. Haylock, H. E. Evans, J. R. Guthrie, G. G. Savage, M. Turner, Maj. D. Thompson, Dr. W. G. Tilley, and Mrs. Leigh Fermor.

Soloists: J. Cobbe, R. G. Welch, R. D. Bednell, R. L. Jackson, E. P. Lane, R. B. Laidlaw, M. A. Murtagh, R. C. Baxter, L. H. Lee, J. Rowley, J. R. Guthrie, H. J. Willis, L. V. Mann, J. Williamson, E. L. Huime, G. Robson, A. B. Gibbons, S. Duckitt, E. D. Wynn, S. H. Smith, W. M. Morris, T. H. Drury, G. Savage and J. W. Astley.

Passengers: O. W. Banwell, L. V. Mann, N. R. Greathead, R. E. Cook, J. G. Wood, M. C. Wilks, Mrs. Tilley.

Messrs. L. V. Mann and J. Williamson made first solos.
 Mr. J. R. Guthrie of Melbourne, passed all tests for his "A" Licence.

This week's total of flying hours beats our previous best for two machines in one week.

Messrs. Stack and Cantrill landed here during the week.

NEWCASTLE-UPON-TYNE AERO CLUB

REPORT for week ending September 9.—Total flying time, 26 hrs. 50 mins. Instruction, 13 hrs. 50 mins. "A" pilots, 9 hrs. Solo training, 15 mins. Passengers, 3 hrs. 25 mins. Test, 20 mins.

Instruction (with Mr. J. D. Parkinson): Miss Slade, Miss Kendall, Mrs. Kish, Sir Joseph Reed, Messrs. Irving, Griffiths, King, Humble, Lawson, Sadler, Temple, Tomkins, Middleton, Walker.

"A" Pilots: Mrs. Heslop, Messrs. Irving, W. B. Ellis, Leech, Runciman, Wilson, R. N. Thompson, C. Thompson, Wardle, Turnbull, Horn, Dr. Dixon, Dr. Alderson. Solo training: Miss Slade.

We regret we are losing the services of our instructor, Mr. J. D. Parkinson, who is going to Canada to take up an appointment with the International Airways of Canada, Ltd. He has been with the club just over two years and has turned out many pilots. The club members, and his many friends in the north wish him every success in his new appointment.

F.O. Thornt called this week with the Fokker J.7986, and stayed overnight. The machine was greatly admired on the aerodrome. The Club House and Aerodrome will be closed from September 17 for two weeks on the occasion of the staff's annual holiday.

NORFOLK & NORWICH AERO CLUB

REPORT for week ending September 8.—Total flying time, 19 hrs. 45 mins. Dual (with Mr. Young): Messrs. H. Meadows, G. Wharton, C. Land, J. Luddington W. S. Coates, Mrs. Cator, C. Ransome, A. Kirkby.

Soloists: Messrs. R. W. Moore, A. G. Barrett, C. P. Cubitt, F. Gough, A. G. Marshall, R. T. Harmer, D. Corsellis, R. F. Potter, N. Brett, H. Cator, H. Pank, N. Lindley.

Passengers: 12.

It is most unfortunate with all this splendid weather we are only favoured with one machine. Certainly there has been great demand for more as one of our members, Mr. A. G. Barrett has been staying at the club for a fortnight, on a " Flying Holiday." He has flown every day, if not in a Moth then he has flown off the deep end because there was no Moth. One of our members who has become somewhat fed up with flying "53's" has, we understand on good authority purchased a kite and a thousand feet of kite cord. With this contraption he hopes to amuse himself and maintain his interest in aviation. One thing quite apparent is that this craft will certainly get him off the ground as far as the "53" would when we last saw it.

STOCKTON & DISTRICT FLYING CLUB

EFFORTS have been made to form an aero club at Stockton-on-Tees, but, so far, owing to lack of funds, with not very successful results. It has been suggested that the organisers should ask existing clubs and private owners to lend a helping hand. If, therefore, any "P.O." or club would be willing to help in the formation of this club, by giving advice, or offering to give

exhibition and passenger flights for one day, and so raise the necessary funds (or part thereof!) will they kindly communicate with W. Davison, Secretary, Stockton and District Flying Club, 7, Westcott St., Stockton-on-Tees, Durham.

SUFFOLK & EASTERN COUNTIES AEROPLANE CLUB

REPORT for week ending September 8, 1928. Flying time, 17 hrs. 15 mins. Dual instruction 10 hrs. 55 mins. "A" and "B" pilots: 1 hr. 10 mins. Solo (under instruction): 3 hrs. 5 mins.

Pasenger flights: 1 hr. 45 mins. Tests: 25 mins.

Instruction (with Mr. Lowell): Mrs. Young, Dr. Mildred Yate, Messrs. Pettward, Jolly, T. Marriage, Ogilvie, Croydon, Welsh, Billinton, and Wedd.

"A and "B" Pilots: Dr. Sleight, F.O. Birt and Mr. R. Brown.

Solo (under instruction): Messrs. Pettward, Jolly and Ogilvie. Mr. Jolly passed his tests for "A" licence with flying colours and Mr. Ogilvie, who is 17 years old and still at Rugby: carried out his first solo successfully. It is hoped that he will obtain his "A" licence before term begins.

A large number of machines are entered for the On to Hadleigh on Saturday, and the display looks as if it will attract a large number of visiting aircraft. Members of other clubs will be admitted to the enclosure free.

FROM THE FLYING SCHOOLS

HENDERSON Flying School, Brooklands Aerodrome

REPORT for week ending September 6.—Total flying time, 45 hrs. 5 mins.

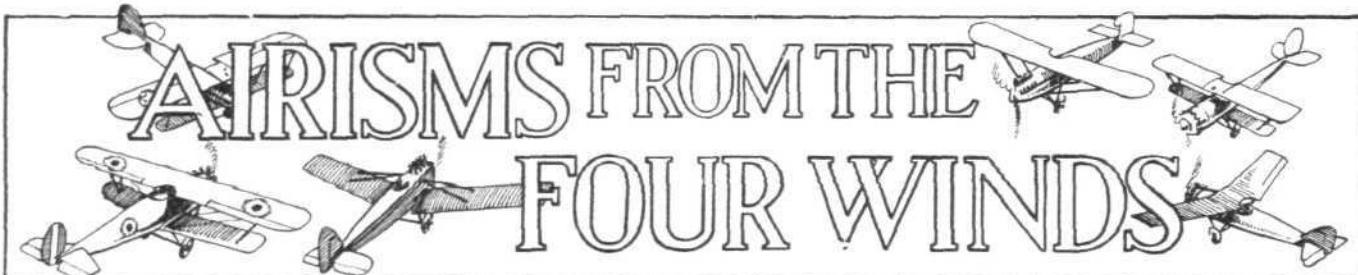
Dual (with Col. G. L. P. Henderson): Messrs. Billimoria, d'Eyncourt, Garthwait, Banks, Taylor, Thomas, Oliver, Egston, Forsyth, Preston, Brooks, Moursi, Daniel, Rogers, Bennett, Elton.

Dual (with Capt. Davis): Messrs. Austin, Banks, Hsiao, Dr. Taylor, Daniel, Norman, Groner, Garthwait, Grierson, Preston, Old meadow, Mrs. Scott, Mrs. Monckton.

Dual (with Capt. Davenport): Messrs. May, Garthwait, Groner, Grierson, Kerr, Daniel, Mrs. Monckton, Miss Wellby.

On September 5, Mr. Courtney-Banks failed to notice a fence across the aerodrome when making a landing and broke the undercarriage and propeller of the machine, but was flying again within 48 hours.

The school is very busy and several pupils are ready to take their tickets.



French Atlantic Attempt

THE two French airmen, Sergts. Assolant and Lefèvre—who recently made an unsuccessful start on their Atlantic flight—left Le Bourget in a Bernard monoplane (600 h.p. Hispano) "Canary Bird," accompanied by M. Armand Lotti, on September 4, for New York via the Azores. They were forced to descend at Casablanca that afternoon, owing it is stated to a faulty oil feed. They set out for Dakar the following morning, but returned later to Casablanca and decided to return to Paris, where the machine will be overhauled prior to another attempt.

Australia-New Zealand Flight

CAPT. KINGSFORD SMITH and Mr. Ulm—who flew from California to Australia last June—left Sydney in their Fokker monoplane "Southern Cross" for New Zealand. After leaving Sydney at about 7 p.m. (New Zealand time) the airmen were in wireless communication with the New Zealand stations for the first few hours, and then little or nothing came through until the early hours of the morning, when it was gathered that they had encountered a severe storm. Eventually the "Southern Cross" passed up Cook Strait, and on reaching Wellington at 7.20 a.m. circled over the town before proceeding to Christchurch. They landed here, at the Wigram aerodrome at 9.20 a.m., having thus covered some 1,500 miles in 14 hrs. 12 mins. flying time. As a result of their fine flight the New Zealand Government has decided to present the airmen with £2,000.

Australia-England Flight

LIEUT. KEITH ANDERSON and Mr. Hitchcock left Sydney, in a Bristol Tourer, for England on September 9, arriving the same day at Charleville. Unfortunately, on September 11 they crashed at Pine Creek, and although escaping injury themselves, the machine is badly smashed.

Great Flying-Boat Cruise

THE four R.A.F. Supermarine-Napier "Southampton" flying-boats engaged on the Far East Cruise arrived at Batavia on September 9, and will proceed to Singapore, probably on Friday.

The U.S. National Air Races

THE U.S. National Air Races for 1928 opened at Los Angeles on September 8. Besides an aero exhibition

a big flying programme, extending over eight days, has been arranged. On September 5 a start was made in the National Air Derby, when 37 machines (Class A) left Roosevelt Field, N.Y., for Los Angeles, via Pennsylvania, Ohio, Indiana, Missouri, Oklahoma, Texas, New Mexico, Arizona and California. Two faster classes (B and C) left on September 8. The first to arrive at Los Angeles on September 10 in Class A was Earl Rowland, in a Cessna monoplane, whose time was 26 hrs. 30 mins. He was followed by Robert Daké and Edward Taney in an "American Moth" (a description of which will be found on p. 774) with a time of 27 hrs. 15 mins. Four other machines arrived shortly after, but the actual winner will not be known until reports from the controls come in. The main event, a non-stop "Marathon" from New York to Los Angeles, started on September 12, the competitors being due in Los Angeles on the following day.

Touring Europe in an Avian

SEÑOR O'GARA, a Spanish gentleman who, a little while back, bought an Avro "Avian" ("Cirrus II") on which he is learning to fly, arrived at Croydon recently in his machine, piloted by Lt. Haya of the Royal Spanish Air Force. During the last few weeks they have been making a tour round Europe in the "Avian," having already flown some 5,000 miles. Starting from Madrid they flew along the Mediterranean coast to Italy, Salonika, and Constantinople, thence via the Balkans to Vienna, Prague, Berlin, Amsterdam and London. On September 7 they left Croydon en route for Madrid.

Mr. MacCallum Scott's Body Found

IT is reported from Vancouver (B.C.) that coastguards at Washington Harbour have recovered the body of Mr. A. MacCallum Scott, who was one of the seven passengers in the Victoria-Seattle aeroplane, which was lost in Puga Sound recently.

French Air Manoeuvres

THE biggest air manœuvres yet held in France will commence on September 14, and over 350 aircraft, and all the anti-aircraft defences of Paris will take part. To a certain extent, these manœuvres will be a replica of the "Exercises" held last month in England. Sir Samuel Hoare, Secretary of State for Air, and a large staff of British air officers will be present.

THE CONTROL OF AIRCRAFT BY SUPPLEMENTARY AVIETTES OR ALULAS

By A. P. THURSTON, M.B.E., D.Sc., M.I.Mech.E., F.R.Ae.S., M.I.A.E.*

THE flight of birds has always been an inspiration to mankind, but, during recent years, the enormous success achieved by the flying machine appears to have blinded our eyes to the benefits to be derived from the study of natural flight. Consequently, the birds still retain the secret of many of the details of their methods of starting, landing, and gliding

leading edge at the outer joint, see Fig. 1. The wings are also provided with a small pinion known as the remicle, situated at the front edge of the wing, but at a greater distance from the body. The bastard wing is formed on the first digit, and the remicle is attached to the tip of the second digit.

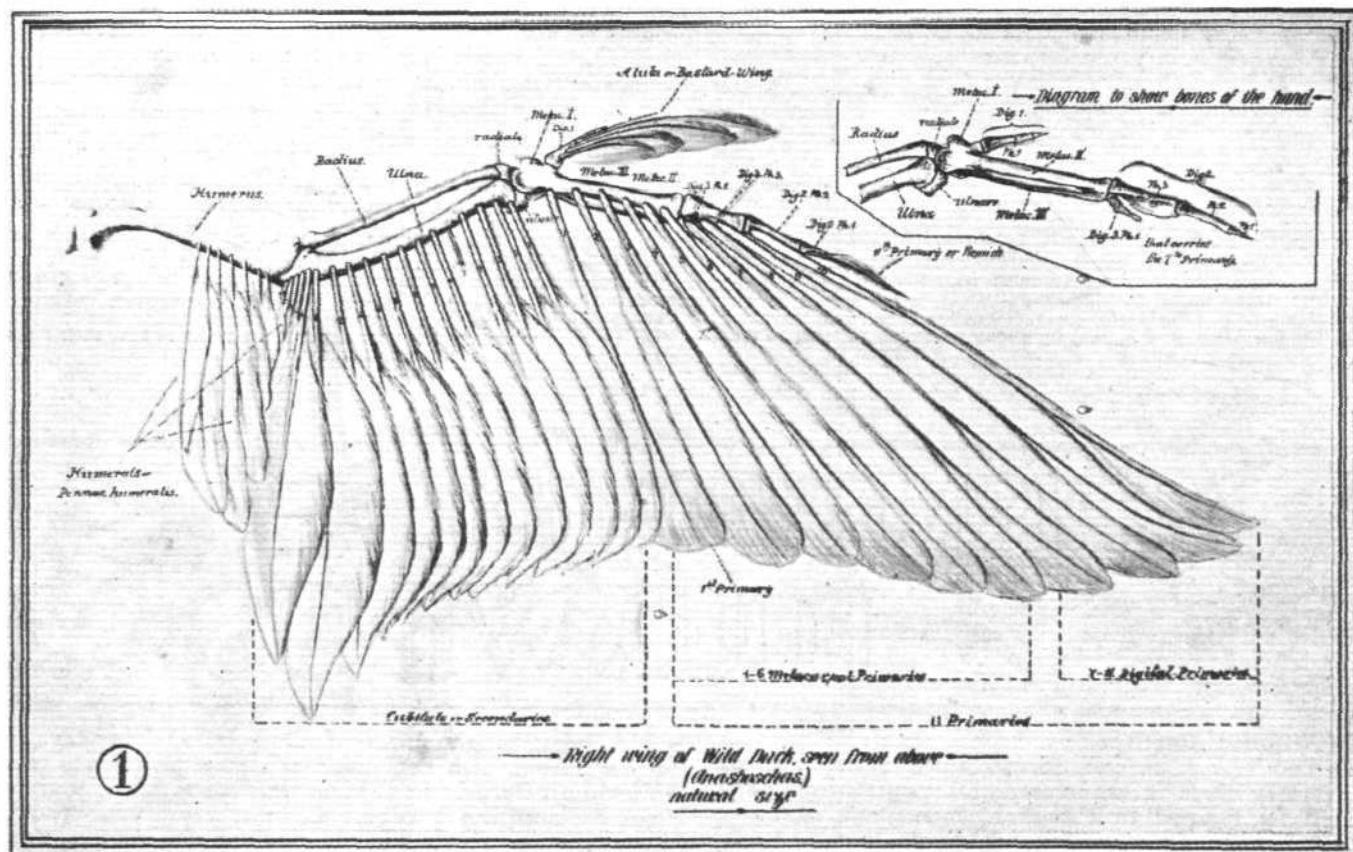


Fig. 1.

which it is probable would be of great use to the designers of our aeroplanes.

The wings of most flying birds are provided with a small but well-defined auxiliary wing, variously known as the *alula* or *ala spuria* or *bastard wing*, situated above the front

The question naturally arises : What is the special function performed by the bastard or alula wing ? Does it enable a bird to take off or alight, or manœuvre or soar better ? Does it add to the efficiency or safety of its flight ? Or is it merely the atrophied relic of an obsolete member. Having regard to the fact that the bastard wing and the remicle appear to be late developments of the bird's wing and that



Figs. 2, 3 and 4.

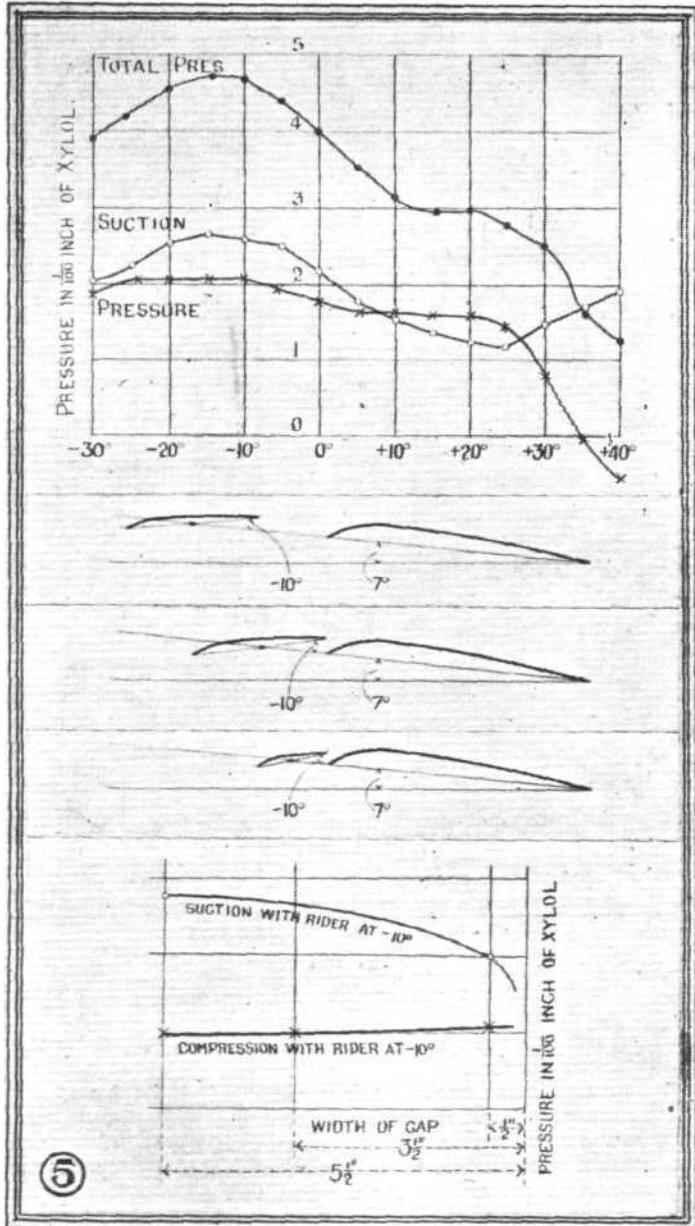
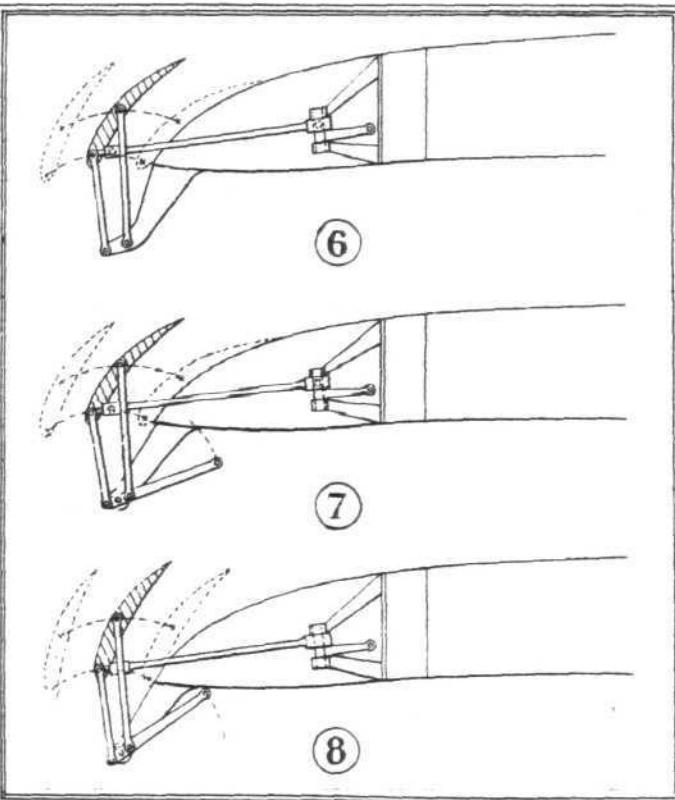


Fig. 5.

all birds having highly developed flying powers are provided with bastard wings, it would appear that the bastard wing and the remicle are not relics of obsolete members, but are performing some important function.

The photographs of birds in flight, see Figs. 2, 3 and 4, show that the bastard wing is generally extended and separated from the main wing when a bird is starting, alighting or soaring.

Fig. 2 shows a pigeon starting to fly. Fig. 3 a pigeon landing, and Fig. 4 the commencement of the down stroke.



Figs. 6, 7 and 8.

If the wings of a dead bird are stretched to the fullest extent by pulling the muscles, it will be found that the bastard wing is also projected beyond the front edge of the main wing, and also that its front edge is rotated downwards so that the bastard wing is at a negative angle to the main wing.

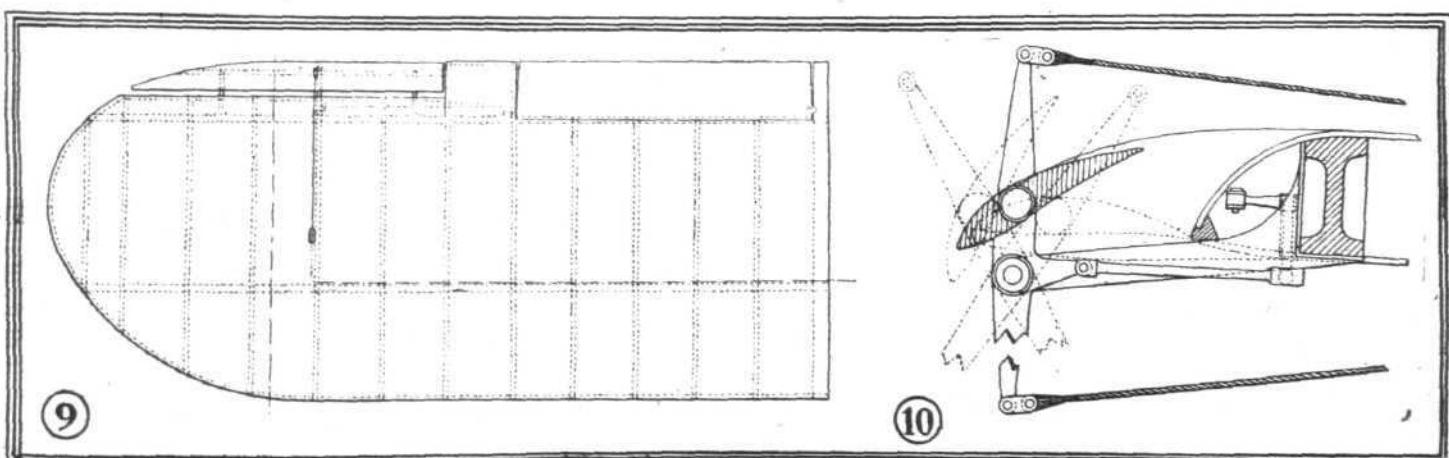
The alula or the tip of the alula appears to be flexible in comparison with the adjacent portion of the main wing, and to be capable of being flexed upwards by the suction of the air over the leading edge of the wing.

A number of experiments were made before the war with aeroplanes having small planes, or aviettes of various chords placed in front of, above, or under the leading edge of the main plane. See FLIGHT, November 20, 1914, pp. 1134 to 1136. The supplementary or rider planes were capable of being turned to any angle relative to the main plane, see Fig. 5, which also shows the variation of the lift on the main plane, set at an angle of 7°, caused by altering the inclination of the rider plane when in front of the leading edge of the main plane. The experiments proved:—

(1) That small rider planes or alulas could be used for controlling aircraft.

(2) That the maximum interference occurs with the rider plane near the front edge of the main plane and turned down at a negative angle to the main plane.

(3) That the "bubble" point of a main wing could be delayed and the lift increased by placing the rider plane in front of the leading edge of the main plane.



Figs. 9 and 10.

So much for a resumé of earlier work in order to set forth more readily later developments.

Aviettes, alulas, or small wings are mounted in front of or above the leading edges of the main wings so as to form a gap between them and the main wings, and means for controlling the inclination and projection of the said aviettes, etc., are provided so that either both aviettes can be projected or withdrawn together, or one projected and the other simultaneously retracted. Means for balancing the aviettes are also provided so that they can be operated with a minimum expenditure of energy. The aviettes are arranged to be operated by side motion of the control lever, and they can be projected or retracted together by rotation of a control wheel mounted on the control column. Springs are mounted in the operating mechanism between the control lever and the aviette to enable an aviette on one side of the machine to open up either automatically or when the other aviette is in contact with the front edge of the main plane.

In Fig. 6, the aviette or alula is mounted on two pairs of links connected at their lower ends to a projection from the leading edge of the main plane, so that in normal flight the alula may be in closed contact with the nose of the machine and when opened up form a gap which is backwardly inclined upwards. The links may be of any suitable relative length so that the aviette or alula travels in any desired path as the gap is varied.

In Figs. 7 and 8 each pair of links are mounted on a lever, the inclination of which may be adjusted from the cockpit so that the inclination of the aviette with the main wing may be varied at will. The aviettes are not necessarily mounted so as to move parallel to the edge. In the arrangements shown in Figs. 9 and 10, the aviette is mounted so as to pivot about one end.

Figs. 9 and 10 show another method of mounting aviettes or alulas so that they move parallel to the edge of a main plane. It will be noted that the aviette may be caused to change its inclination simultaneously with motion relative to the wing. The mechanism for doing this may consist of parallel links of definite lengths as shown in Figs. 6, 7 and 8. In the arrangement shown in Fig. 10, the inclination of the aviette or alula is caused to vary with the distance of the aviette from the leading edge by mounting it upon a lever pivoted to projections on the leading edge.

The aviettes are controlled by cables from control levers or wheels.

Aviettes or alulas may, of course, be fitted to machines having the usual aileron control.

When it is desired to take advantage of the higher lift which may be obtained from a wing having aviettes or alulas the aviettes on both sides are projected outwards by the amount, and rotated to the angle, found by experience to give the best results.

When it is desired to fly at the highest speed, both aviettes are brought back on top on the main wing so as to offer the minimum resistance, and the necessary lateral control is

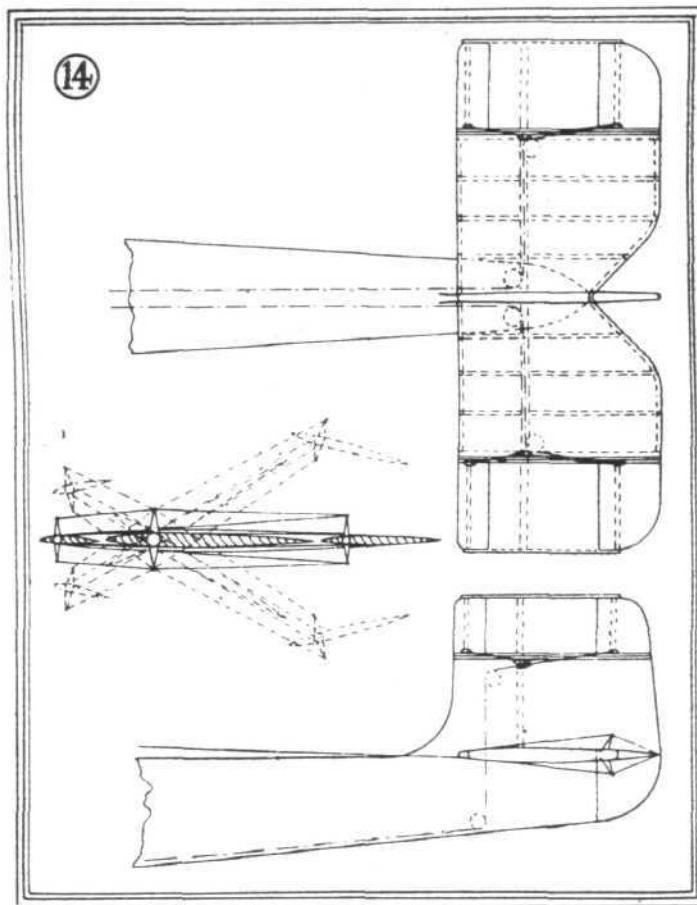
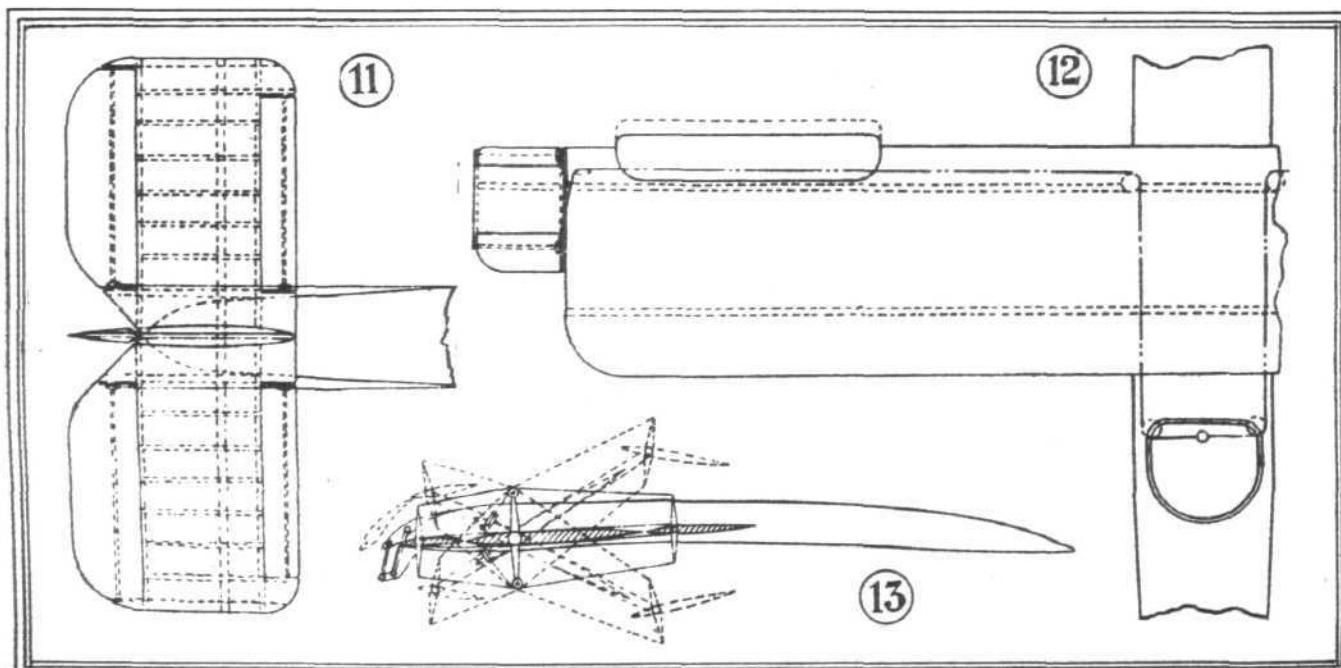


Fig. 14.

provided either by projecting one aviette at a time, or by the usual aileron control.

The springs in the control cables allow this to be done.

When the machine is approaching the stalling angle, the aviettes work under different conditions owing to the difference in the air flow over the main plane, and the springs in the control cables permit them to open out automatically on the side which is stalling. The angle of the main plane at which they automatically tend to open may be varied by altering the inclination of a lever. Provision is made for connecting the aileron and aviette controls together either manually or automatically when the machine approaches the stalling angle, also aviettes are provided to the front edges of tail planes or elevators and fins or rudder, as shown in Figs. 11, 12, 13 and 14.



Figs. 11, 12 and 13.

The above is a brief summary of the so-called "Apt control," but there are many developments which there is no time to describe in this paper. The subject appears to offer one of the most promising lines of development now open in aeronautics.

I wish to record my sincere thanks to Dr. P. R. Lowe,

THE ROYAL AIR FORCE

London Gazette, September 4, 1928

General Duties Branch

Pilot Officer P. N. Seally-Allin is promoted to rank of Flying Officer; March 17. Wing-Commander E. R. Manning, D.S.O., M.C., is placed on half-pay list, Scale B; Sept. 1 to 30 inclusive.

The follg. Flying Officers are transferred to the Reserve: Aug. 22:—
Class A.: C. H. A. Farnan, S. J. Stocks. Class C.: V. G. H. Gee.

Pilot Officer E. S. Whitaker resigns his short service commn.; Aug. 29. Pilot Officer on probation T. Joyce-Clarke relinquishes his short service commn., on account of ill-health; Aug. 29. The short service commn. of Pilot Officer on probation W. E. Catling is terminated on cessation of duty; Aug. 20.

Accountant Branch

Pilot Officer on probation J. H. Glenn is confirmed in rank and promoted to rank of Flying Officer; Aug. 1.

Medical Branch

The follg. Flying Officers are promoted to rank of Flight-Lieut.; Aug. 24:—W. Coffey, J. Hutchieson, M.B.

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The follg. are granted commns. in Class AA (ii) as Pilot Officers on probation:—M. G. B. Clark; Aug. 11. A. G. Douglas; Aug. 13. E. F. Briscoe; Aug. 14. Pilot Officer on probation W. D. Brookes is confirmed in rank; Aug. 21. The follg. Flying Officers relinquish their commns. on completion of service:—F. James; May 5. M. H. Edmunds; May 5. Flying-Officer K. H. Holley resigns his commn. on appointment to a commn. in the Territorial Army; April 30.

AUXILIARY AIR FORCE

Accountant Branch

No. 603 (City of Edinburgh) (Bombing) Squadron.—The follg. Pilot Officer to be Flying-Officer:—J. L. Jack, M.C.; July 25.

London Gazette, September 7, 1928

General Duties Branch

The follg. are granted short service commns. as Pilot Officers on probation, with effect from and with seniority Aug. 24:—W. S. C. Adams, R. A. Beynon, E. J. Brighton, D. A. Craik, E. B. Grace, G. D. Hoyland, R. Jones, G. S. King, J. Lewis, S. S. Mackay, G. R. Montgomery, M. G. Parker, S. P. Richards.

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Group Captain C. D. Breese, A.F.C., to R.A.F. Base, Gosport, pending taking over command, 3.9.28.

Squadron Leader F. Fowler, D.S.C., A.F.C., to Home Aircraft Depot, Henlow, 29.8.28.

Flight Lieutenants: G. S. Taylor, to R.A.F. Depot, Uxbridge, 3.9.28. S. B. Harris, D.F.C., A.F.C., to H.Q., India, 31.8.28. C. H. Stilwell, to R.A.F. Depot, Uxbridge, 11.8.28. G. C. Bladon, to R.A.F. Base, Gosport, 31.8.28. V. P. Feather, to Stores and Supply Depot, Aden Command, 1.9.28.

Flying Officers: J. T. Riggs, to R.A.F. Depot, Uxbridge, 10.8.28. H. J. G. E. Proud, to No. 446 Flight, Mediterranean, 1.9.28. C. W. Martin, to No. 10 Sqdn., Upper Heyford, 21.8.28. A. H. Montgomery, to H.M.S. Courageous, 24.8.28. R. Benham, to No. 12 Sqdn., Andover, 17.9.28. W. R. Baird, to No. 460 Flight, Mediterranean, 24.8.28. A. S. Lewis, to H.Q., Air Defence of Great Britain, Uxbridge, 1.8.28. C. H. Roberts, to No. 16 Squadron, Old Sarum, 30.8.28. L. C. Burcher, to H.Q., Halton, 27.8.28.

Pilot Officers: F. W. Murison and G. K. Horner, to No. 60 Sqdn., India, 1.8.28. H. J. Cross, to Aircraft Depot, India, 1.8.28.

Cape-London Flight

FLYING OFFICER P. MURDOCH, S.A. Air Force, who recently flew from London to the Cape in 14 days in an Avro "Avian," left Pretoria on Sept. 11 on his return journey.

Liverpool Aero Club

THE Liverpool and District Aero Club has received an intimation that the Air Council has decided to admit the club to the Air Minister's scheme of financial assistance. The subsidy payable consists of a grant of £50 for every member who is trained on a club machine and qualifies for his pilot's certificate. The maximum subsidy is £2,000 per annum. There is also a flying grant of 30s. for each flying hour.

Machine Tools at Olympia

As pointed out by Sir Alfred Herbert, K.B.E., when he occupied the Chair as President of the Machine Tool Trades Association, at the inaugural luncheon on September 5 of

M.B., B.C., of the Natural History Museum for permission to sketch the exhibit shown in Fig. 1; to Messrs. Witherby and Co. for permission to reproduce Figs. 2 and 4 from "The Flight of Birds" by F. W. Headley; and to The Royal Aeronautical Society for permission to reproduce Fig. 3 from the Aeronautical Journal, April, 1910.



London Gazette, September 4, 1928

The follg. Pilot Officers on probation are confirmed in rank:—H. W. Duffey, C. P. Barker, W. P. J. Thomson; July 27. M. R. Kelly; Aug. 8.

Pilot Officer R. David takes rank and precedence as if his appointment bore date June 19, 1927, immediately following Pilot Officer Arthur Edward John Pratt on the gradation list. Sqdn.-Ldr. A. R. C. Cooper is placed on retired list at his own request and is granted permission to retain rank of Wing Commander; Aug. 22. (Substituted for *Gazette*, Aug. 21). Flight-Lieut. C. D. Palmer is placed on retired list at his own request; Sept. 1.

The follg. Flying Officers are transferred to the Reserve:—Class A.—K. C. Baker; Aug. 31. Class C.—W. N. L. Cope; Aug. 29.

The follg. Flying Officers resign their permanent commns.:—R. P. H. Utley; Sept. 1. R. Scott-Taylor; Sept. 5. Flight-Lieut. T. Le G. Pynches relinquishes his short service commn. on account of ill-health and is permitted to retain his rank; Aug. 31. Flying Officer B. J. J. Nimmo relinquishes his short service commn. on account of ill-health; Aug. 29. Lieut. (E) K. A. B. Hutson, R.N., Flying Officer, R.A.F., relinquishes his temporary commn., on return to Naval duty; Sept. 3.

Medical Branch

E. J. Mockler, M.B., is granted a short service commn. as Flying Officer for three years on active list, with effect from Feb. 23, 1926, and with seniority of Feb. 23, 1925. (Substituted for *Gazette*, March 9, 1926.) Flying Officer E. J. Mockler, M.B., is promoted to the rank of Flight-Lieut., with effect from Feb. 23, 1928, and with seniority of Feb. 23, 1927. (Substituted for *Gazette*, March 6, 1928.) Flight-Lieut. E. J. Mockler, M.B., is granted a permanent commn. in this rank; Sept. 5. Flying Officer (Quartermaster) F. W. Goodread is promoted to rank of Flight-Lieut. (Quartermaster) Sept. 1.

Chaplains' Branch

The Rev. M. K. Macleod, M.A., F.S.A., is granted a permanent commn. Sept. 5.

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The follg. are granted commns. in Class A.A. (ii) as Pilot Officers on probation:—E. A. Clench; Aug. 20. M. F. Ogilvie-Forbes; Aug. 20. J. T. S. Horsfall; Aug. 22. The follg. Pilot Officers on probation are confirmed in rank:—H. J. Penrose; Aug. 29. L. Currie; Aug. 31.

The following officers are transferred from Class A to Class C:—Flight-Lieut. C. Jackson; July 31. Flight-Lieut. C. D. Spiers; Aug. 14. Flying Officer L. W. Thres, D.F.C.; Aug. 9. Flying Officer J. Gallacher relinquishes his commn. on completion of service; July 28.

Stores Branch

Flight Lieutenants: H. E. T. Crocker, to R.A.F. Depot, Uxbridge, 27.8.28.

F. W. Humphreys, to H.M.S. *Furious*, 1.9.28.

Flying Officer C. I. Fry, to R.A.F. Depot, Uxbridge, 27.8.28.

Medical Branch

Flight Lieutenant J. G. Russell, M.B., B.A., to Central Medical Estabt., 11.9.28.

Chaplains' Branch

Revd. J. G. Stephens, B.A., to R.A.F. Depot, Uxbridge, 27.7.28.

NAVAL APPOINTMENTS

The following appointments have been made by the Admiralty:—

Lieuts., R.N., Flying Officers, R.A.F.—S. C. Tuke, to *Furious*, for D.L. training in 420 flight (amended orders), and to *Argus*, and for F.F.D. in 422 flight (on completion); H. H. Caddy and J. Brett, to *Victory*, for full flying duties in Base Training Flight, Gosport (July 14). F. G. Wynne, to *Columbine* (Sept. 3), and for F.F.D. at R.A.F. Base, Leuchars. H. P. Madden, to *Furious* for D.L. training, and as Interpreter in French and Spanish (undated).

ROYAL AIR FORCE

Flying Officers, R.A.F.—P. D. Cracraft and G. R. M. Clifford, to *Furious* (undated).

this wonderful exhibition, it is the largest and best collection of machine tools ever brought together in this country, and for that matter, we should think in the world. Fifty per cent. more space is occupied this year than in the previous exhibition. The formal opening was presided over by Mr. Bridgeman, First Lord of the Admiralty. That these machines are the backbone of most of the successful British industries is beyond contradiction and the present display, which remains open until September 22, should attract a visit from everyone at all concerned in the industrial welfare, no matter what the subject. There are 200 exhibitors and the exhibits range in size from the smallest drill capable of thousands of revolutions a minute to huge "hammers" with a "drop" up to 80 tons or more at the rate of over 60 a minute! In *Aircraft Engineer* we hope to make reference to some of the machines which are more particularly of interest to aircraft constructors.

AIR POST STAMPS

By DOUGLAS ARMSTRONG
(Editor of "The Stamp Collector")

Icelandic Air Mail

SINCE the latter part of May an air mail service has functioned spasmodically between Reykjavik and the other principal towns of Iceland by means of a single aeroplane, which, however, is frequently laid up for repairs. The first flight took place on or about May 30, the air post fee being denoted by a 10 aur stamp of the obsolete series overprinted with the outline of an aeroplane in black.

Amsterdam-Batavia Stamps

It is a happy inspiration to place upon the new Dutch air post stamps about to be issued for the Amsterdam-Batavia service the likenesses of the pioneer aviators who originally accomplished this long-distance flight. The pilot, Van der Hoop, who made the first flight in October, 1924, appears on the 75 cents stamp which is for letter postage, and Lieut. Koppen, who last year reduced the time record, upon that of 40 cents representing the post-card rate. Both designs are the work of the eminent artist, Chris. Lebeau, the 40 c. being printed in red and the 75 c. in green.

In the Dutch East Indies themselves a local air post service is to be put in operation between Batavia and the other chief towns of Java on September 1, when provisional air post stamps of 10/12½ c., 20/25 c. and 40/80 c. are to be issued pending the arrival of regular air mail stamps of those denominations on order from Holland.

America's Latest Air Stamp

Anticipating the introduction of the new flat rate of 5 cents for air mail letters despatched over the U.S.A. contract system as from August 1, 1928, a new Government air mail stamp of that value was put on sale at all post offices on July 25. The design, printed in red and blue, illustrates a night flying air 'plane passing the beacon light on Sherman Hill in the Rocky Mountains, typifying the progress of the flying post in the land of its origin.

Australia Next

The success that has attended the Australian air post service has decided the Commonwealth postal authorities to provide a distinctive 3d. stamp for aerial postage in connection with the East to West air mail route which is to be inaugurated early next year. It is rumoured that the subject of the design may be, appropriately enough, an Australian eagle.

Air Post Exhibition

People are apt to lose sight of the fact that some of the earliest experiments in the transmission of mails by air were carried out in Great Britain. These pioneer flights will be brought to mind, however, by some historical collections of British air mail covers, including the famous London-Windsor service of 1911, which will be on view in the special Air Post Section of an important exhibition of British postage stamps, etc., that is to be held in the Farringdon Hall from November 16 to 24 next. Silver and bronze medal awards are offered for the best air mail exhibits, and intending exhibitors should get in touch with the Secretary, London Stamp Exhibition, 89, Farringdon Street, E.C.4, without delay.

AIR MINISTRY NOTICES

Croydon : Neon Air Light.

The Neon air light situated in the S.W. corner of Croydon aerodrome has been removed. The Neon tubes comprising the light are now mounted around a steel lattice tower, 34 ft. high, situated at the S.E. corner of the S. hangar on E. side of the aerodrome.

The characteristic signal, hours of operation, etc., remain unchanged. (No. 67 of 1928).

Flight Cadetships for aircraft apprentices. "Sir Charles Wakefield" Scholarships awards.

The Air Ministry announces:—Aircraft Apprentices P. B. Coote, J. Whitehead and D. V. Angell from No. 1 School of Technical Training (Apprentices) Halton, and Aircraft Apprentices H. B. Wrigley and T. U. C. Shirley from the Electrical and Wireless School, Flowerdown, have been selected for cadetships at the R.A.F. Cadet College, Cranwell, on the result of the examinations held on completion of their three years' training as aircraft apprentices.

"Sir Charles Wakefield" Scholarships valued at £75 each, have been awarded to Flight Cadet G. D. Stephenson on the result of the recent competitive examination for entry into the R.A.F. Cadet College and to Flight Cadet P. B. Coote. The "Hyde-Thomson Memorial Prize" valued at about £35 has been awarded to Flight Cadet T. U. C. Shirley.

COMPANIES

Imperial Airways Report

THE annual report of Imperial Airways, Ltd., for the fourth year of operation reveals a year of steady progress, in which the company's services in Europe and the Near East have both contributed towards the improved trading results, which show an increase of £61,106 net profit. A resolution is to be submitted to an extraordinary meeting to follow the ordinary meeting on September 7 to give effect to the company's new subsidy agreement with the President of the Air Council, providing for the creation of the deferred shares. The capital is £1,000,000, divided into 25,000 £1 deferred shares and the remainder ordinary shares. During the 10-year subsidy period half of any balance remaining from net profits will, after payment of a dividend at the rate of 10 per cent. on the ordinary, be devoted to the payment of a dividend on the deferred, and the other half to a further dividend on the ordinary shares. After the end of the 10-year subsidy period the disposal of the last-mentioned half will be within the discretion of the directors. The new agreement with the Government, when it has been ratified by the proprietors, takes effect from April 1 next, but provides that during the current year the subsidy will be maintained at the rate hitherto in force. Net profits for the year ended March 31, 1928, totalled £72,567. This compares with £11,461 for 1926-27, and a loss of £20,415 for the year preceding. After extinguishing the debit balance of £24,171 brought in, the directors propose a dividend of 5 per cent., being the first distribution to be made by the company since its formation in 1924.

PUBLICATIONS RECEIVED

Thèses Présentées à la Faculté des Sciences de l'Université de Paris. By Leon Kirste. Leon Kirste, Blériot Aéronautique, Suresnes (Seine), France.

Catalogues

Les Carburateurs Zenith et les Moteurs d'Aviation. Société du Carburateur Zenith, 39-51, Chemin Fenillat, Lyon, France.

Morris Electric Runways. Herbert Morris, Ltd., Loughborough.

AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.)

APPLIED FOR IN 1927

Published September 13, 1928

- 5,162. W. H. WAUD. Propellers. (295,735.)
- 12,995. ARMSTRONG SIDDELEY MOTORS, LTD., and F. R. SMITH. Rocker and push-rod mechanism for valve gear of i.c. engines. (295,615.)
- 13,368. L. F. SCAGLIA and H. P. ROBIN. Screw propellers. (295,741.)
- 13,464. A. B. STEWART. Screw propellers. (295,746.)
- 15,136. G. H. COOKE and AIRCRAFT PATENTS, LTD. Bomb-releasing gear for use on aircraft. (295,784.)
- 15,219. A. DEMUYNCK. I.c. rotary engine. (272,255.)
- 16,248. E. PICCOLI. Airships. (272,957.)
- 18,307. G. VLAHOV. Miniature flying devices. (295,807.)
- 18,450. R. ALKAN and G. LESOURD. Regulating apparatus for operating from a distance devices for releasing projectiles from aircraft. (295,808.)
- 19,047. E. LANZEROTTI-SPINA. Variable-pitch screw propeller. (295,813.)
- 32,037. FIAT SOC. ANON. Wing spars. (281,657.)

APPLIED FOR IN 1928

Published September 13, 1928

- 10,382. A. E. J. FAVRE. Rotary engines. (290,271.)
- 24,137. W. MEINDERSMA. Propellers. (277,384.)
- 27,196. FORD MOTOR CO. Airplane tail-supporting wheel. (282,715.)

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